The logic of educational theory : from epistemology to hermeneutics.

Halliday, John Stewart

THE LOGIC OF EDUCATIONAL THEORY:

FROM EPISTEMOLOGY TO HERMENEUTICS.

Thesis submitted for the degree of

DOCTOR OF PHILOSOPHY

IN THE

FACULTY OF EDUCATION

of the

University of London

by

John Stuart Halliday

Centre for Educational Studies

King's College (KQC)

September 1987

ABSTRACT

In the last thirty years or so, many attempts to elucidate the logic of educational theory and its relation to practice have been informed by the idea that educational theory should guide rational practice by providing knowledge whose 'objectivity' is founded on the notion of 'experience'. Consequently many curricular and managerial practices in education are also informed by this idea. It is argued, however, that some of these practices have undesirable educational implications and that the idea that informs them is underpinned by an empiricist foundationalist epistemology that has been widely criticised on philosophical grounds.

This thesis offers the beginnings of an alternative elucidation of the logical links between educational theory and practice based on a notion of hermeneutics derived from the work of H.G. Gadamer, T.S. Kuhn, R. Rorty and C. Taylor. It is argued that educational, natural scientific and other types of theory develop holistically within a theoretic network rather than individually against the foundations of 'experience' and that the linguistic practices of theoretical communities share a set of 'family resemblances' in discourse that makes it possible for theorists to interpret what each of them is doing and in this way to come to prefer some theories over others.

A discussion of 'critical theory' serves to illustrate the basis on which some interpretations are to be preferred over others and from this discussion, it is proposed that educational theory should be seen as an interpretive practice. In order that such theory might be validated, some curricular and managerial changes within educational institutions are suggested and the thesis concludes with a discussion of vocationalism and the curriculum for teacher trainees.

CONTENTS

———oOo———

ACKNOWLEDGEMENTS

I should like primarily to thank Professor D.N. Aspin for his work as my supervisor.

In addition, I should like to acknowledge the award of a research grant made by the 1984 Research Committee of Jordanhill College, Glasgow, and to thank the members of that committee for their support.

Finally I should like to thank those friends, colleagues and members of my family who, in various ways, have encouraged me during the course of this research.

———oOo———

INTRODUCTION

During the past thirty years or so the relationship between educational theory and practice has been much debated within a number of contexts and from a variety of theoretical points of view. [1] Philosophical interest has been directed both towards the alleged logical primacy of educational theory and more recently towards the primacy of educational practice within the theory-practice relationship, [2] though the existence of a continuing concern to elucidate this relationship suggests that neither philosophical interest has been entirely successful in elucidating the logical links **between** educational theory and practice. [3]

Presently the empirical links between educational theory and practice have been informed by the idea that trainees should be prepared for their future careers as various sorts of practitioners within academic (theoretical) institutions. This idea of a vocational preparation is apparent in a number of contexts - for example in colleges of further education, to some extent in secondary schools, and especially in the Colleges and Departments of Education where educational theorists **prepare** teacher-trainees for their future careers as practising teachers. In all three cases, there is an institutionalisation of the assumption that "theory guides practice" and, in all three cases, there is some evidence to support the view that such institutionalisation is not entirely satisfactory. [4]

The philosophical move towards the 'primacy of practice' may be a reflection of this view as may the move within the present institutional structures to incorporate more "practical experience" within pre-vocational curricula. [5] For example in the case of the teacher education curriculum, there has been a move to increase the amount of "school experience". [6] Yet far from easing the

problem of the lack of an account of the logical links between educational theory and practice, this move makes a solution to the problem more urgent, for unless it is going to be claimed eventually that theory and practice are totally **un**related, it is even more important that whatever time is left for trainees to reflect upon their practices should be used wisely. Yet few, one imagines, would wish to argue that theory and practice are unrelated for, even minimally conceived as thinking about what to do next, educational theory gives some direction to educational practice. Moreover theory is necessarily involved in the **identification** of a practice for, without some kind of organising principle and interest, behaviour appears random and disparate.

The problem to which this thesis is addressed concerns the purpose of educational theory and the nature of its logical links with practice. It may be divided in three parts: first, I identify some of the issues that have arisen in the course of recent debate about the logic of educational theory. I go on to identify empiricist foundationalist epistemology that can be seen to be underpinning both the assumption that 'theory guides practice' and the institutional manifestations of that assumption, especially those curricular and managerial practices that support the ideas of pre-vocationalism and bureaucratic rationality. I argue that these practices have many undesirable educational implications.

In the second part, I criticise foundationalist empiricist epistemology on the grounds that 'experience' cannot provide the foundations necessary to support the claim that scientific knowledge is 'objective' knowledge. I argue that the dominance of this epistemology for the practice of theorising about education, combined with the philosophical criticism that can be directed against it, gives rise to the idea that all educational theories might be as good as each other. In other words I argue that this epistemology gives rise **either** to the idea

that theories may be compared according to some permanent neutral framework of enquiry that functions as a foundation for all claims to knowledge (objectivism) **or** the idea that all theories are equally valid (relativism).

I develop the opposition between relativism and objectivism throughout this study. A number of alternative forms of objectivism are considered and rejected for the reason that even if 'foundations' for all claims to knowledge could be specified, the process of relating any particular claim to knowledge with those 'foundations' would itself introduce a contingency, the elimination of which would generate a logically regressive chain of permanent neutral frameworks of enquiry. I also reject a number of forms of relativism including the form that suggests that educational theories may only be pragmatic responses to immediate practical problems and may not challenge the conceptual contexts within which particular problems are framed.

Within education, the oppositions between the curricular notions of vocationalism and liberalism and the managerial notions of hierarchy and democratic participation may be seen to be subsets of the more general opposition between objectivism and relativism. However, in common with other writers such as R.J. Bernstein and R. Rorty, I argue that this opposition between objectivism and relativism is unhelpful in our attempts to theorise about a world that is radically contingent. We argue that any attempt to **ground** our claims to knowledge either through empiricist notions such as the correspondence theory of truth or through rationalist notions of fixed rules or final criteria for theory preference is bound to fail. Instead I follow Bernstein who suggests that we need

> a more historically situated, nonalgorithmic, flexible understanding of human rationality ... 'objectivism' as the basic conviction that there is or must be some permanent, ahistorical matrix or framework to which we can ultimately appeal in determining the nature of rationality ... is illusory. [7]

And Rorty who suggests that we are coming to the end of

> the Kantian tradition that to be a philosopher is to have a 'theory of knowledge', and the Platonic tradition that action not based on knowledge of the truth of propositions is 'irrational' ... epistemology as the attempt to render all discourses commensurable by translating them into a preferred set of terms is unlikely to be a useful strategy. [8]

Recently as Bernstein notes, there has been a "convergence" of philosophical interest in the topics of objectivism and relativism. In this climate he suggests that 'hermeneutics' might offer a way out of the impasse suggested by the hold that objectivism and relativism have on our thinking. In the third part of this study I further the idea that 'hermeneutics' can offer us a way out of the impasse thrown up by notions of objectivism and relativism when theorising about education. An overview of my argument is given below.

Trans-cultural judgements of rationality can be made in favour of 'scientific' societies rather than 'primitive' societies on the basis of the technological successes of the former that command the attention of the latter in a way that is not reciprocated. Within scientific societies, it is widely believed that natural scientific theories offer predictive and explanatory success that might well be achieved by other types of theorists if they were to emulate the procedures that natural scientists are assumed to follow. In the case of educational theorising, however, there seems to have been an attempt to emulate a so called "empirical" research procedure as if such a procedure were unquestionably responsible for the "success" of the natural sciences.

In contrast to this notion, I hold that this research procedure is not responsible for the "success" of the natural sciences. Instead it is more plausible to attribute this "success" to the way in which natural scientists incorporate their interpretations of what each of them is doing within a developing **network** of theory whose coherence is maximised according to the

common values that bind the natural scientific community together. Moreover a network of natural scientific theories cannot develop in isolation from networks of other types of theory because the explanatory power of scientific terms is parasitic upon what we might call a "family resemblance" relation subsisting between scientific and non-scientific forms of discourse. Instead there is a "linguistic division of labour" [9] both within the natural scientific community and across to other communities of theorists. Hence I believe that educational theorists should emulate this 'hermeneutic' account of natural scientific research.

Since the notion of interpretation takes on a central importance for my account of educational theory, I discuss this notion in connection with H.G. Gadamer's notion of "hermeneutics" and J. Habermas's extension of that notion. Both writers stress that theory has its moment of application in practice, that is to say that both writers stress that it is in the process of interpreting another theory that one's own practical orientation shifts. Yet they differ in their suggestions as to how far it is both possible and desirable to go towards objectivism in the choice of rival interpretations. I take a position somewhere between Gadamer's suggestion that ultimately we just act or decide in the same way as we might decide that we like a particular painting or decide what to do, on the spur of the moment, as it were, and Habermas's suggestion that, when we come to a decision, we are motivated by a concern that that decision would command a "consensus" in the "ideal" situation in which all interested persons are free to contribute to a discussion without the existence of any form of domination or coercion.

I adapt Habermas's notion of an "ideal consensus" in order to explain how theorising can be something other than a pragmatic response to immediate problems. I argue that the "ideal consensus" is a "regulative ideal" that guides

every attempt to theorise and so every theorist is able to place in jeopardy not just those claims that are assumed by the framework within which the theorist is working but also the framework itself. However I do not accept Habermas's idea that the "ideal consensus" is a notion that can be made theoretically explicit in order to function as a foundation for all forms of interpretation; for this idea seems to me to be another form of objectivism that leads our educational thinking back to a concern to find that set of educational theories that form a set of exclusive guides to rational practice.

My educational thesis may be seen to parallel Rorty's [10] philosophical thesis that traditional concerns with the nature of certainty stem from an unwarranted search for security in a contingent universe. Just as Rorty advocates a less ambitious but more valuable role for philosophy as a tool for cultural criticism in the service of the "ungrounded social hope" that human life can be improved, so too I attempt to avoid what, on my argument, is a waste of effort in trying to mould educational practices according to the latest version of objectivism as it might be applied to educational practices, whether that version purports to be provided by criterion referenced assessment, performance criteria for curricular evaluation or the special training of managers who might be supposed to ensure the achievement of objectives set by those who have a distant concern with the practice of teaching. Instead I argue that we do better to approach the conditions under which an "ideal consensus" might be realised, sometimes by making those imaginative leaps that enable us to see the options that face us afresh and to act upon them with a confidence that is derived more from a feeling that we are acting "in solidarity" with one another than from an impractical attempt to apply what purports to be the latest version of objectivism.

I conclude with a consideration of the present institutional arrangements for theorising about education. It seems to me that the search for coherence that governs the development of a network of theory should include the possibility that within all practices, "revolutionary" conceptual shifts may take place from time to time in a manner that is similar to the one that is supposed by Kuhn to take place in the case of natural science. Nevertheless I argue that it may be desirable to continue the present institutional separation of educational theorists from practitioners by drawing an analogy with current practice in Physics: just as it happens to be advantageous to distinguish between the sub-communities of theoretical and experimental physicist, so too it might be advantageous to distinguish between the sub-communities of educational theorists and practitioners, not because such a distinction is logically necessary, but because it may be efficacious for the help it might offer us in our attempts at making progress in educational theory. To follow such an analogy would involve educational theorising having the characteristics of a practice with the additional characteristic of its being concerned with the coherence of a range of practices that make up the educational enterprise. That does not mean that educational theory should guide practice nor does it mean that educational theorists should make educational policies - it simply means that those who happen to occupy the role of theorist are seen as conversational partners with whom those who occupy the role of practitioners find it helpful to talk in order to make progress in their own search for theoretic coherence. Even though this suggestion may appear to be closely related to the current institutional arrangements for theorising about education, I suggest that a hermeneutic conception of educational theory has radical implications - for the teacher education curriculum, for vocational curricula generally and for managerial practices based on hierarchical notions of authority.

———oOo———

NOTES AND REFERENCES

1 Most publications concerned with teacher education refer to this debate. For example see Alexander R.J. et al. Change in Teacher Education 1984. Also Chapter 1 of this thesis.

2 The title of the latest book from Barrow R. Giving Teaching back to Teachers 1984, is a good example of this "move to practice". In this thesis, I discuss the recent work of Carr W., Evers C.W., Rizvi F., Walker J., all of whom may be seen to be involved with this "move". See the Bibliography for a list of some of their publications.

3 For example Aspin D.N. refers to the need for "a much more detailed and elaborate account of the complex nature of theory and education than we at present have ... in which the logic of practical action and of intention will have to be gone into further;" p 16 in his review "Philosophy of Education" 1982. Also Peters R.S. "Philosophy of Education" (pp 30-61, Hirst P.H. ed, 1983,) in a reference to the theory-practice issue, writes: "philosophy of education should form a more integral part of educational theory ... Too often, I fear, we stand on the touch-line and jeer when the work is done instead of trying to become participants in it." (p 53)

4 See Dearden R.F. Theory and Practice in Education 1984, whose first chapter contains details of some of the research into the complaints that teacher-trainees have levelled against what they see as the irrelevance of their theoretical studies to the practice of teaching.

5 This move is illustrated by the Manpower Services Commission's attempt to include "work experience" within some Technical and Vocational Educational Initiatives (TVEI), the Youth Training Scheme (YTS) and the Continuing Provision for Vocational Education (CPVE). See the Further Education Unit's publications: Vocational Preparation 1981, Supporting YTS 3rd edition 1985, CPVE in Action 1985, and chapter 3 of this thesis.

6 The DES Circular no 3/84 states: "Initial teacher training courses should be planned as to allow for a substantial element of school experience and teaching practice which, taken together, should not be less than 15 weeks in a postgraduate course." p 7. This is compared with 10 weeks in a typical postgaduate course in the 1960's. (Tuck J.P. "Alternative forms of training within the university" in Tibble J.W. ed. The future of Teacher Education 1971, pp 111-133.)

7 Bernstein R.J. Beyond Objectivism and Relativism 1985, p xi.

8 Rorty R. Philosophy and the Mirror of Nature 1980, p 356.

9 This is the title of a thesis put forward by Putnam H. in "The Meaning of 'Meaning'" in his Mind Language and Reality 1975, pp 215-271.

10 See Rorty R. 1980, and his Consequences of Pragmatism 1982.

———oOo———

CHAPTER 1

DEBATE ABOUT THE NATURE AND SCOPE OF EDUCATIONAL THEORY

This chapter is concerned with debate that has been generated by and arisen from the ideas of Hirst and O'Connor about the nature and scope of educational theory. In order to understand Hirst's contribution to the debate, I discuss Hirst's 'forms of knowledge' thesis and the method of Analytic Philosophy of Education (APE). At the end of the Chapter I set out some of the issues that can be drawn out of this debate and to which this thesis is addressed.

A perusal of the publications in philosophy of education between about 1955 and the present indicates a perennial and continuing concern with the relationship between theory and practice. Perhaps the most well-known debate about the nature and scope of this relationship has been that between D.J. O'Connor and P.H. Hirst. It began in 1957 after the publication of the former's Introduction to the Philosophy of Education [1]. The position adopted by O'Connor in that publication was still seen by the latter as important enough to warrant extensive mention in his 1983 publication Educational Theory and its Foundation Disciplines [2] which was designed to follow up Tibble's The Study of Education [3]. Both books attempted to assess the contributions of the so-called component disciplines to the theory of education.

O'Connor's Account of Educational Theory

The substance of the Hirst-O'Connor debate concerns the criteria against which 'educational theory' is or should be judged. For O'Connor educational theory should be scientific in that it should be

> a logically inter-connected set of hypotheses confirmed by observation and which has the further property of being refutable and explanatory. [4]

By "explanatory" O'Connor means that educational theory should provide a way of classifying events, along with a way of describing relationships between events from which particular predictions can be made against a background of fixed initial conditions and auxiliary hypotheses. By "refutable" he means that educational theories should be judged by standards outside themselves; as for Popper [5] theories stand as tentative conjectures awaiting falsification. The attractions of this view of educational theory were so great for O'Connor that he was prepared to assert in 1957 that

> what currently counts as educational theory is generally a courtesy title. [6]

O'Connor here was both reacting against the 'Great Educators' approach to educational theory, where some well known philosopher's epistemological and ethical theses are treated as sources of educational implications which might serve to guide educational practitioners, and also lamenting the (then) present state of educational psychology and sociology. Even where there are "well established experimental findings in psychology and sociology" [7], O'Connor maintains there is still a large logical gap between these findings and their applicability in educational practice. However he hopes that "the future development of the social sciences will narrow this gap." [8]

O'Connor sought to promote the view that only empirical research can provide educational theory and further that such research is best modelled on the natural sciences which he believed supply us with 'objective' knowledge uncontaminated by personal beliefs and prejudices. The assumption behind this view seems to be that there is a world external to us which we seek to describe with ever increasing accuracy; the better we describe this world then the better we can move around within it. However as numerous attempts to articulate and justify correspondence theories of truth have shown we do not have direct access to the way the world may be **actually** constructed and

divided up. Indeed we cannot make sense of the idea that the world is **actually** divided up in any way since whatever observation language we use presupposes its own way of dividing up the world. Furthermore the success of predictions in the natural sciences is bound up with the fact that all states of the system under investigation can be described by the same concepts in the future as in the past, usually values of the same variables. However in the social sciences the very terms in which the future will have to be characterised are not available at present and so it is perhaps not surprising that the sort of educational theory that O'Connor prescribed is not yet available. It is also worth noting that, while O'Connor was advocating that educational theory should be more like natural scientific theory, post-empiricist philosophers of science were showing that the view of natural science with which O'Connor was working was not even an adequate conception of natural science, let alone of social science. I shall discuss this in greater detail in Chapter 4.

Even if educational theory did supply empirical generalisations that enabled us to know **how** to do things, according to O'Connor educational theory would still not enable us to know **what** we ought to do. Theory would give us a guide to **means** but not **ends.** O'Connor considered that the selection of ends involves making value judgements for which there is no support emanating from **his** account of educational theory. The import of values into educational theory he considered to be "both unnecessary and logically disastrous." [9] It is logically disastrous because for O'Connor there is no logical relationship between values let alone between values and empirical theory; and it is unnecessary because if we do incorporate values into educational theory then we gain no advantage since our theory still only 'guides' our practice and we incur the penalty that our theory becomes an "intellectual salad" [10] which incurs "the logical odium of begging disputed questions that are central to moral philosophy." [11]

There are three points that arise from this version of theory by O'Connor that are worth noting. First, there is his supposition that moral philosophy is completely devoid of logical reasoning - that **either** an argument conforms to the canons of deductive logic **or** else it is not logical at all. This seems highly contentious in that it seems to deny that there might be **any** point in in doing moral philosophy. Moreover it is logically disastrous for O'Connor to be advancing a meta-theoretical analysis designed to warn us not to take the vaporising of evaluative theorists seriously, when such an analysis is itself an attempt to promote the value of a particular type of reasoning.

The mistake that I think that O'Connor makes is to assume that there is only one form of reasoning, **empirical** reasoning, that sets the criteria by which all other forms of reasoning can be judged. Since moral 'reasoning' so-called does not meet these criteria, O'Connor considers it to be outside logic. However as Mill wrote in connection with the idea that there might be moral proof.

> It is evident that there cannot be proof in the ordinary or popular meaning of the term. Questions of ultimate ends are not amenable to direct proof ... We are not, however, to infer that its acceptance or rejection must depend on blind impulse, or arbitrary choice. [12]

O'Connor must presumably agree with this for, in putting forward a view of what educational theory should do, O'Connor is acquiescing in the idea that there is at least one way in which an argument for some desirable end can be formulated.

The practical syllogism is another example of the way in which a normative argument might be presented. While a series of practical syllogisms seems to generate an infinite regress of normative premises, it is only when we are stuck, like O'Connor, with the idea that regresses must be stopped by secure foundations, that normative argument seems impossible. This is particularly the case for O'Connor who denied that normative statements can be derived from

empirical theory. In any case O'Connor seemed to place too much faith in the supposition that empirical theory forms a logically developing whole, bearing in mind the radical discontinuities that some post empiricist philosophers of science suggest occur. [13]

The second point to note is the idea that theory should guide practice in some way. O'Connor seemed to mean that just as physical theory provides "a guidance system for the applied physicist and engineer" [14] so psychological and sociological theory might be supposed to provide a guidance system for the teacher. However while there is undoubtedly some relationship between physical theory and engineering artefacts the logic of that relationship is not at all clear since the least applied research can often lead to a proliferation of unexpected artefacts, as in the case of Einstein's special theory of relativity [15]. It depends therefore what O'Connor meant by "a guidance system". The weak sense of 'guidance' illustrated by the Physics-Engineering example is unhelpful to practitioners since it is the **expected** outcomes that are of interest to **them.** The alternative is to adopt a strong sense of 'guidance' that supposes that theory will consist of a series of conditional statements of the form "if such and such a state is desired then perform such and such a series of tasks". The problem with this sense of guidance is that it presupposes that both states and tasks can be precisely specified in advance of the situation to which they will apply. There is also the practical difficulty of knowing just how much detail and how many conditionals are required.

O'Connor seemed to accept that neither sense of guidance is satisfactory when he admitted that

> even if theories of education did meet these exacting standards (of scientific theory), it is doubtful if they would yield the same kind of practical advances that technology, medicine and economic organisations owe to their respective bases. [16]

He suggested that this is partly because

> effective education is quite possible without any of the theoretical background of the kind offered by psychology, sociology and the rest of the relevant sciences. And this is not the case with medicine and engineering. [17]

This statement reveals the way that O'Connor seemed to regard educational practice as something that exists independently of any educational theory, whereas he seemed to suppose that theories of medicine and engineering serve to differentiate medical or engineering practice from some other and unrelated things like witchdoctoring or basic craft. O'Connor misses the point that we need some means of identifying when educational practice is taking place and neglects the account of theory that suggests that to have a theory is to have an idea of what does and what does not count as a practice.

The third point to be noted is the assumed separation of means from ends with the claim that while decisions about ends are outside of logic, and hence for O'Connor rationality, **means** can be determined rationally on the basis of weighing up the scientific facts. This notion of means-ends rationality can be seen to be at work in much of what presently goes on in educational institutions by way of curriculum planning. First the desirable ends or objectives are determined. Presently this is often done by "analysing needs". That is to say that the satisfaction of the perceived needs of some client group become the objectives of the enterprise. The objectives are then made "operational" which means either that they are "reduced" to statements of behaviour or that they are "reduced" so that they are amenable to testing by questionnaire or structured interview. Second the methods and procedures are determined on the basis of the empirical evidence available. Finally the effectiveness of the teaching or course or whatever is determined by the extent to which the objectives have been met and in the light of any discrepancies new methods and procedures are tried out.

This notion of means-ends curriculum planning has been discussed in most books on "Curriculum Development" [18] and is discussed more fully in my chapter 3. For the moment, it is worth noting that means-ends curriculum planning suffers from serious drawbacks, such as the adequacy of reductions of mental states to behavioural statements [19], the adequacy of experimental techniques such as questionnaires to measure complex educational objectives and the difficulty if not impossibility of detailing predicted future outcomes with conceptual tools subject to revision. [20] It is considerations like these that prompt Barrow [21] for example, to suggest that time would be better spent thinking through the implications of a proposal prior to its implementation rather than going through this procedure of post evaluation. There is finally the difficulty that Rizvi [22] describes with the idea that evaluative discourse can be settled once and for all and combined with factual judgements, as if factual judgements were not made on the basis of normative criteria or evaluative discourse was not influenced by causal explanatory relations.

Hirst's Account of Educational Theory

In order to understand Hirst's account it is necessary to recall his 'forms of knowledge' thesis and the role that philosophy takes within it. Hirst argues that knowledge consists of a limited number of quite distinct forms that can be distinguished logically on the basis of three criteria;

1) the central concepts that are peculiar to the forms.

2) the distinctive logical structure or relationship among concepts.

3) the criteria for truth or validity. [23]

Hirst's account of the scientific form seems to agree roughly with O'Connor's account of science. However Hirst argues that not only science but also any combination of the forms can provide an educational theory which provides "rational principles for educational practice." [24] Thus educational theory is

concerned with both the formulation of ultimate educational ends as well as the discovery of efficient means.

However it is not clear how forms that are supposed to be distinct can combine to form the practical theory that Hirst seeks. Hirst cannot have it both ways. Either the forms **are** logically distinct (which Hirst needs them to be in order to justify his idea of a liberal education) but at the price of rendering his account of educational theory implausible; or else the forms of knowledge **can** be synthesised, in which case the argument for logical separation disappears and we are still left with an unsatisfactory account of educational theory. In either case we still have the empirical difficulty of finding an individual or group with a broad command of knowledge in all its forms to draw up the rational principles for practice that Hirst requires.

As for O'Connor, the idea of "rational principles for practice" is problematic for it is not clear what form these are to take. If they are to take the form of conditional imperatives then there is the problem of detailing all the conditions that might obtain in a practical situation. If on the other hand they are to take the form of generalised prescriptions for action then there is the difficulty of applying those prescriptions. There seems to be a need for rules of application with the need for further rules to apply the rules and so on.

Even if Hirst's account of educational theory were not subject to these difficulties there would still be the problem of distinguishing between good and bad theory. In other words there would still be a need to provide criteria for theory **preference.** Arguably there are plenty of educational theories about but unless we have some idea of how educational theories are evaluated and even how to describe theories in logically compatible terms then we have no guide to practice whatever.

In a recent publication Hirst admits to some of these difficulties. While being "unrepentant in seeing educational theory as primarily the domain which seeks to develop rational principles for educational practice" [25], he now seems to recognise the importance of practice and the significance of the tacit elements in all action. [26] Hirst goes on to recommend that familiarity with the work of Habermas might be important to those seeking to construct an adequate account of educational theory. [27]

Despite Hirst's admission that his account of educational theory is flawed, and the numerous objections that have been directed against his forms of knowledge thesis [28], his account of educational theory has generally been more widely accepted than that of O'Connor. Part of this acceptance has no doubt been due to the prominence of the account of philosophical knowledge that Hirst, along with Peters, has articulated, that is meant to cohere with and to some extent underpin both the forms of knowledge thesis and Hirst's account of educational theory. According to Hirst and Peters philosophy is a form of knowledge that is concerned to find the "logically necessary conditions for the use of a word". [29] These conditions are to be identified via the process of linguistic analysis. This process results in what has been called Analytic Philosophy of Education (APE). According to some recent accounts, APE has been so influential that any research in philosophy of education that did not conform to APE's rhetorical norms and interests could be excluded. [30]

Analytic Philosophy of Education

APE is alleged to arise out of Wittgenstein's later philosophy which paradoxically can be seen as an attack on the idea of a theory.

> If I were told that anything were a theory, I would say, No, No! That does not interest me - it would not be the exact thing I was looking for. ...
> For me the theory has no value. A theory gives me nothing. [31]

This apparent anti-theoretic view can be traced back to Wittgenstein's challenge to us to find the essence of something. For example in the Philosophical Investigations [32] his imaginary interlocutor accuses him of nowhere saying what the essence of a language game is. Wittgenstein replies

> and this is true - instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all, but that they are related to one another in many different ways.

In Philosophical Investigations 19-23 Wittgenstein invites us to find what is common to the proceedings that we call games and suggests that there is no one thing that is "common to all, but similarities, relationships, and a whole series of them at that". Later he characterises these similarities as "family resemblances".

This seems straightforward yet it seems to rule out as a valid method of philosophy that version of it that attempts to discover those properties which all members of a class may be deemed to possess. The denial of the validity of this form of what has been called essentialism goes against that tradition of philosophical theorizing which produces grand theories that attempt to simplify and maximise coherence. Instead Wittgenstein suggests that many so-called philosophical problems simply disappear if the words that are used to pose the problem are returned to their natural base.

> When philosophers use a word - 'knowledge', 'being', 'object', 'I', 'proposition', 'name', - and try to grasp the **essence** of the thing, one must always ask oneself: is the word ever actually used in the language game which is its original home? - What **we** do is to bring words back from their metaphysical to their everyday use. [33] (original emphasis)

This has been taken by some to mean that philosophers should act as a kind of "thought police" [34] who prevent people from wandering off the road of common sense which has special epistemic privilege. The function of such "thought police" is to analyse the ordinary use of words in order to find the "logically necessary conditions for the use of a word." [35] Thus Wittgenstein's

later philosophy may be seen to suggest a philosophical method which proceeds by way of analysis of everyday use in order to elucidate the 'correct' or 'standard' use, though it is not at all clear that Wittgenstein intended to suggest a method of analysis that guaranteed the correct use of words. Instead there is some reason to suppose that Wittgenstein neither intended to suggest a philosophical method nor even any philosophical theses.

The distinction between 'saying' and 'showing' which was made initially in the Tractatus [36] has been traced through to On Certainty [37]. In the Tractatus, philosophical propositions were regarded as being amongst those that could only be shown not said. However since the Tractatus consists of philosophical propositions then it seems as if Wittgenstein is stating that which, by his own propositions, could only be shown. The metaphor of a ladder has been taken to be a device whereby Wittgenstein accounts for his own thesis.

> My propositions serve as elucidations in the following way: anyone who understands me eventually recognises them as nonsensical, when he has used them - as steps - to climb up beyond them. (He must, so to speak, throw away the ladder after he has climbed up it.) [38]

It seems that the Tractatus cannot on this logic consist of philosophical propositions. Rather it consists of metaphorical allusions to a philosophical thesis. In Wittgenstein's later philosophy, there is a similar insistence on the alleged unstatability of philosophy. The style of presentation is unusual and it is argued that this style was chosen in order not to appear to suggest a statement of philosophical theses. Rather it has been argued that the style was carefully chosen to have the most chance of changing the reader's way of seeing the world. [39]

If this is true then perhaps it is the lack of a suitable context for philosophical remarks that prompted Wittgenstein's pessimistic comments about being misunderstood.

> I was obliged to learn that my results (which I had communicated in lectures, typescripts and discussions), variously misunderstood, more or less mangled or watered down, were in circulation. [40]

Furthermore it is possible to argue that Wittgenstein's later enigmatic and aphoristic style was designed to 'lock out' those who could not understand. This idea may be supported by reference to passages of Culture and Value where Wittgenstein [41] writes of forms of presentation including that of the image of a lock to which only those with a key can get inside. Wittgenstein goes on to complain that Freud's theories are so easily unlocked that everybody has access to "fanciful pseudo explanations" [42].

If the style of Wittgenstein's writing is designed to exclude those unable to understand it, and the difficulty in understanding is derived from the impossibility of stating the showable, then it looks as if only those 'on the inside', so to speak, will understand. This seems to suggest that an individual or group of individuals who have successfully studied and internalised Wittgenstein's later philosophy are in the privileged position of having access to the showable. In this way this privilege gives those individuals credentials for the membership of an élite and the possession of these credentials seems to absolve the members from the requirement of stating their theses clearly.

Lakatos [43] is unsympathetic to this élitist approach; he alleges that, in stressing the tacit, Wittgensteinians shift the problem of theory selection on to the problem of selection for membership of the élite. For Lakatos the advantages of demarcationism are that it is open to refutation in a democratic way, whereas élitism involves a conservatism and closed society with the layman as spectator.

It is not just Lakatos who is unsympathetic to an élitist approach to understanding. Gellner [44] has attempted to present Wittgenstein's later

philosophy in the form of four theories or, as Gellner puts it, "pillars", in order to criticise followers of Wittgenstein who, Gellner alleges, are opposed to critical examination of their values and ideals. By stressing that Wittgenstein's philosophy cannot be stated in the form of theses and by stressing the tacit component of philosophy Wittgensteinians seem to be saying that criticism implies lack of understanding; understanding implies allegiance.

The four theories isolated by Gellner are as follows: (1) There is the argument from paradigm case which moves from the actual use of words to the solution or dissolution of philosophical problems. (2) The generalised version of the naturalistic fallacy gives ordinary use normative force. (3) The contrast theory of meaning states that for any term to be meaningful, something must not be covered by it. (4) Polymorphism is the theory that words can have a variety of meaning. Having isolated these theoretic pillars of Wittgensteinian philosophy Gellner proceeds to knock them down. Gellner's main demolition effort is directed against the theory that ordinary use has normative force. He is able to give many examples where ordinary use is confused and where what common sense tells us turns out to be false. For example common sense tells us that the earth is flat and that sticks bend when partly immersed in water. Furthermore he argues that there is no reason why the truth should be presented to us as embodied in ordinary use. Instead Gellner argues that we have a very powerful method of obtaining truth in science, part of whose method is the clear statement of theses followed by attempts at refutation. By refusing to state their theses clearly Wittgensteinians seem to be missing what for Gellner is our best method of getting knowledge.

Despite the objections of Gellner, Lakatos and others and despite the pejorative use of the term élite, I do not wish to suggest at the outset that the Wittgensteinian kind of élitism is obviously untenable or irrelevant to the

problem of theory selection. I discuss élitism more fully in Chapter 5. Put briefly, the point at issue between élitists and demarcationists is the extent to which demarcation criteria can be understood from 'the outside' of the language games to which they apply, for if demarcation criteria can only be understood by those who are on 'the inside' of the language games involved then it looks as though there is still some form of élitism, as I call it, involved in demarcationism.

There are further difficulties with Wittgenstein's later account of philosophy. When he writes,

> Philosophy may in no way interfere with the actual use of language, it can in the end only describe it. For it cannot give it any foundation either. It leaves everything as it is. [45]

he seems to suggest that there is no point in doing philosophy. However in the context of Wittgenstein's other writing, the phrase "it leaves everything as it is" occupies a different role from the language game of doing nothing. Instead it points to a role for the philosopher as 'shower', the maker of a selection of perspicuous representations that **re**present the world in a different way.

G.E. Moore reported

> that what he, Wittgenstein, had at 'the back of his mind' was 'the idea that aesthetic discussions were like discussions in a court of law' where one tries to 'clear up the circumstances of the action' which is being tried, hoping that in the end what one says will 'appeal to the judge'. And he said that the same sort of 'reasons' were given, not only in Ethics, but also in Philosophy. [46]

However if Wittgenstein wrote in an enigmatic way in order to proffer a carefully chosen "key" to his thoughts, then there seems to be some impropriety in trying to reveal the postulated Wittgensteinian vision. Also in the attempt to apply this postulated vision to an area like education then there seems to arise the further problem of guaranteeing the correct application. By its concern with the attempt to find and state analytic theses

by analysis of ordinary talk about education, APE seeks to provide just such a link between philosophy and education.

There seem to be two ways in which that link could be forged. First APE could have access to a sort of indubitably true metalanguage which can be correctly attached to educational claims. The problem with this is that there is a need for a meta-metalanguage which guarantees the correct application of the metalanguage. The second possibility is that philosophy is concerned to describe and redescribe "the conceptual schemes employed by educational psychologists and the types of procedures by means of which their assumptions can be tested." [47] This would not be problematic if philosophy were allowed to make statements about the world; but, conceived as what is called a second order activity by and within APE, it is prevented from doing this.

The nature of this so-called "second order" activity has been characterised as stemming from the 'underlabourer' conception. This conception was introduced by Locke in his Essay Concerning Human Understanding [48] in order to draw an analogy between the work of "master builders" and great scientists like Newton, Huyghens and Boyle. Locke argued that, just as the progress of master builders is enhanced when the ground is cleared for them by underlabourers, so scientific progress would be enhanced if "underlabourers" in the form of "philosophers" were to clear away

> some of the rubbish that lies in the way to knowledge [like] the learned but frivolous use of uncouth, affected, or unintelligible terms [49]

Within APE philosophy is widely viewed as a sort of ground clearing operation that takes place separately from any substantive theorising about education. But as Aspin remarks, this view has tended to lead to

> a dismissive attitude to the deliberations of philosophers who, it was felt, were contributing little if anything to the solution of the problems with which teachers in schools had daily to contend. [50]

The problem for APE is that, in producing analytic truths by analysis of everyday use of language, it has to select what is going to count as everyday use. In order to identify the everyday use of educational words APE needs some idea of what 'education' is. The question arises as to whether APE's idea of education is the same as anybody else's idea, and if it is not, then there is the problem of selecting the 'correct use'. Putting it more strongly it does not seem possible for APE to avoid the charge that its method simply reinforces its prior commitment to certain values and norms and that this procedure is necessarily conservative in that it states and keeps the status quo, comfortable for its practitioners yet pointless and irrelevant to everyone else.

Furthermore it has been argued that analysis does not take place in a vacuum with universal criteria of correctness. Instead analysis takes place at particular times, for particular purposes; and again as Aspin remarks

> the prime problem of analysis is ... the elucidation of the very theoretical foundations upon which a particular analysis or view of analysis rests. [51]

Some of these criticisms have recently been acknowledged by Peters. He not only makes nine recommendations for philosophers of education, which include the need "to loosen up the analytic approach ... to influence and be influenced by empirical work" [52] but also manages according to Carr to "conceal the extent to which he was himself the principal architect and exponent of the approach." [53] This concealment might not be so important if APE and the theoretical foundations on which it rests were not still influential but, as I go on to suggest, empiricist foundationalist epistemology not only supports the continuance of APE as a very powerful paradigm for philosophy of education but also supports the 'logic' of much of what presently counts as educational theory and research.

Schenck's [54] exploration of the term 'curriculum' serves to illustrate this problem with analysis. Having given examples to show that the word 'curriculum' performs a variety of functions dependent upon its context of use, Schenck argues that it is not always clear to which context the word 'curriculum' refers. In other words, he argues, 'curriculum' features in a number of 'language games' and is shuffled from 'game' to 'game' without sufficient attention being paid to the diversity of meaning. Unfortunately Schenck is unable to provide any methodical framework for his selection of language games and so fails to account for his normative thesis on the basis of which he attempts to correct an apparent failure to appreciate polymorphism. He thus fails to account for the superiority of **his** language games about 'curriculum' over and above the games that are presently played with it in education.

Jonathan has proposed a solution to some of the difficulties with both Hirst and O'Connor's account of educational theory. [55] She suggests that educational theory should be the attempt to

> arrive at a more sophisticated and systematic understanding both of what does and of what ought to go on. [56]

She argues that this suggestion necessitates three strands to theory; normative, empirical and critical theory. Critical theory is supposed to mediate between normative and empirical theory so that "normative reasoning should be assimilated to empirical reasoning". [57]

She goes along with O'Connor to the extent that they both believe that empirical theory can supply educational facts. However Jonathan considers that O'Connor asks the wrong question about those facts.

> The question is not 'Is education, like medicine, derived from scientific theory, thus giving rise to an educational theory as reliable and comprehensive as that which we find in medicine ?' but rather 'Are those areas of factual enquiry which we partially draw upon in making educational judgements as soundly based as the corresponding ones which we presently draw upon in making medical judgements ?' [58]

Jonathan considers that a practical activity like education involves the appraisal and justification of different courses of action and like O'Connor sees empirical theory as a sort of reference manual to be consulted when decisions and justifications are difficult. Unlike O'Connor however, Jonathan considers that there is such a thing as normative theory and that philosophers have a particular responsibility to produce it because of their familiarity with such theory and its limitations. [59]

Jonathan is dissatisfied with what is regarded by the APE paradigm as the exclusively "second-order" role of the activity of doing philosophy and warns of its dangers. Since for Jonathan every action carries the logical, though not necessarily the empirical requirement of accountability every action makes explicit reference to theory. She therefore endorses Peters when he writes

> The question, therefore, is not whether a modern teacher indulges in philosophical reflection about what he is doing, it is rather whether he does it in a sloppy or a rigorous manner. [60]

and urges us to take theory seriously.

> When the dependence of practice on theory is denied, because such dependence is unavoidable, elements of theory tend to guide practice unconsciously and therefore uncritically, so it is important that we explore what sort of theory guides practice. [61]

Philosophy of education according to Jonathan not only supplies normative theory but also contributes to the formulation of critical theory. Philosophy is supposed to combine with other disciplines to produce an all-embracing role for educational theory which, to use one of Jonathan's medical analogies,

> is the attempt to identify what counts as a wart, to specify what would count as a cure, and to investigate what would be the most practically effective and morally acceptable means of achieving that end. [62]

While Jonathan appreciates some of the difficulties associated with the positivist separation of normative from empirical theory, her account of critical theory fails to show how normative and empirical theory can combine.

To some extent, perhaps she shares with Hirst the difficulty of trying to account for synthesis where none is needed. In other words, by accepting that there are different strands to theory, perhaps Jonathan has already taken the decisive step from which the only recovery is a synthesis that is logically opaque or impossible.

Rizvi [63] argues specifically against the positivist separation of normative from empirical theory. By means of example he attempts to show that it is the **context** in which a statement is made that is most important in determining its evaluative or factual content. The fact-value problem thus "dissolves" [64] for Rizvi since there are no "essential" properties of propositions that serve to distinguish their evaluative or factual content once and for all. Consequently Rizvi feels able to give the following account of educational theory:

> Educational theory is a practical theory which organises facts in such a way as to develop rationally defensible principles to guide educational practice. Most attempts at educational theorising may be seen as involving the process of practical deliberation in which solutions are sought for contextually specific problems which confront those who engage in the educational enterprise. [65]

In other words Rizvi sees educational theory as the attempt to think about finding a solution to the practical problems that arise and he is prepared to allow that 'rational defensibility' should admit many different sorts of consideration much like "the model provided by our ordinary discourse". [66] He goes on

> we need to place less emphasis on the generality of our explanations ... Focussing on particularities and differences would mean paying more attention to the perspectives of the members of an educational community themselves. [67]

Rizvi is here elevating ordinary discourse above the sort of broad generalisation that for him presently constitutes educational theory.

However there is a paradox in Rizvi's thesis that he only partially acknowledges and for which he does not seem to account. He concludes:

> It may be thought that this account of the logic of educational theory is distressingly general. My reply must be that we are dealing with questions that always involve a plurality of valid and rival claims, a plurality of conflicting needs and interests and a plurality of perspectives and positions. [68]

Concentration on the particular case, the particular 'question' is advocated using the paradigm of ordinary discourse, yet philosophical discourse is employed to provide "a distressingly general account".

Rizvi needs the equivalent of Wittgenstein's metaphor of a ladder [69] to account for his own thesis. The paradox arises because the general-particular distinction is so easily taken to provide the essence of the theory-practice distinction. Perhaps Rizvi is only interested in those readers who will assume for themselves that general-particular, theory-practice are distinctions that are themselves context-specific and that Rizvi's own thesis is a particular solution to a particular problem that confronts educational theorists. However if a reader does make that assumption then he is left wondering how the problems for theoretical solution are to be selected. Is the reader to select the most particular pressing problem that confronts him? Or is the reader to follow Rizvi and select a problem whose solution will be "distressingly general"? I shall attempt to overcome this apparent paradox in a way that preserves Rizvi's insight into the primacy of the particular context in which an educational problem arises.

Issues Arising

From the above discussion a number of issues of different types and complexity arise. The two main issues are:

A) What does educational theory presently do?

B) What should educational theory do?

I have phrased these issues in the form of questions about purpose rather than in the form of questions about nature so that I have the scope to get away

from the idea that a dissertation about the logic of theory presents the essence of theory which can then be related to particular instances of practice according to the motives and interests of practitioners, as if a meta-theory could be presented once and for all within which particular interests might be accommodated. Instead I want to leave room for the view that a dissertation about theory is itself a particular instance where a substantive position is argued for. The idea that the particular/general distinction corresponds to a practice/theory distinction is unhelpful in that there is no such thing as a complete description of **every** particular instance which relates to a general term. Instead every term may be regarded as general in some contexts, particular in others. For example the term 'electron' is a particular example of an atomic particle and can be assumed under general atomic theory, but we also have electronic theory which for some purposes assumes atomic theory within it.

Arising out of question A is the subsidiary question of what if anything might be wrong with conceptions regarding the present purpose of educational theory. I shall attempt to answer question A and this subsidiary question in the next two chapters. Question B raises the subsidiary questions:

1) Since scientific theory is supposed to provide the paradigmatic example of theory, should educational theory be more like scientific theory and if so, how?

2) Since educational theory is supposed to be connected with the rationality of educational practice, what is the nature of this connection?

I attempt to answer question 1 in Chapter 4 and question 2 in Chapter 5. In Chapters 6, 7 and 8 I attempt to work out an alternative way of elucidating the logic of educational theory.

———oOo———

NOTES AND REFERENCES

1 O'Connor D.J. An Introduction to the Philosophy of Education 1957.
2 Hirst P.H. ed. Education and its Foundation Disciplines 1983.
3 Tibble J.W. ed. The Study of Education 1966.
4 O'Connor D.J. "The Nature and Scope of Educational Theory (1)", 1973, p 50.
5 Popper K. The Logic of Scientific Discovery 1968.
6 asserted originally in O'Connor, 1957, p 110 and reaffirmed in O'Connor, 1973, p 49.
7 O'Connor D.J. 1957, p 110.
8 Ibid..
9 O'Connor D.J. 1973, p 55.
10 Ibid., p 56.
11 Ibid..
12 Mill J.S. "Utilitarianism" in Utilitarianism, Liberty and Representative Government 1859.
13 for example Kuhn T.S. The Structure of Scientific Revolutions 1962.
14 O'Connor D.J. 1973, p 53.
15 Einstein's first paper on special relativity was "On the Electrodynamics of Moving Bodies", Annalen der Physik, Vol 17, 1905, pp 891-921, though this was followed up by several others.
16 O'Connor D.J. 1973, p 64.
17 Ibid., p 59.
18 for example Golby M. et al. (eds) Curriculum Design 1975.
The chief supporters of 'means-ends' curriculum planning are:
Bloom B.S. Taxonomy of Educational Objectives in 2 vols. New York: David McKay and Co., 1956.
Mager R.F. Preparing Instructional Objectives Belmont California: Fearon, 1962.
Tyler R. Basic Principles of Curriculum and Instruction University of Chicago Press, 1950.
Popham W.J. Educational Criterion Measures Inglewood California: Southwest Regional Laboratory for Educational Research and Development, 1967.
Davies I.K. "Writing General Objectives and Writing Specific Objectives", in Golby M. et al. 1975.
Eisner E.W. "Instructional and Expressive Objectives", in Golby M et al. 1975.
Among the critics of 'means-ends' curriculum planning are:
Macdonald-Ross M. "Behavioural Objectives: A Critical Review", in Golby M. et al. 1975.
Pring R. "Bloom's Taxonomy: A Philosophical Critique (2)", Cambridge Journal of Education no 2, 1971, pp 83-91.
Stenhouse L. An Introduction to Curriculum Research and Development 1975.
19 cf. Malcolm N. Problems of Mind 1972.
20 cf. Taylor C. "Interpretation and the Sciences of Man", 1979 in his Philosophical Papers vol 2, 1985.
21 Barrow R. Giving Teaching Back to Teachers 1984, p 251.
22 This forms a central part of Rizvi F. The Fact-Value Distinction and the Logic of Educational Theory 1983.
23 Hirst P.H. Knowledge and the Curriculum 1974, p 44.
24 Hirst P.H. 1983, p 5.
25 Ibid..
26 Ibid., p 13.
27 Ibid., p 28.

28 Hirst's Forms of Knowledge Thesis has been frequently criticised most recently by Brent, Pring, Evers and Walker. In Philosophical Foundations for the Curriculum 1978, Brent criticises Hirst for alleged prevarication over the issue of the transcendentalism of the forms. In Knowledge and Schooling 1976, Pring argues that the demarcation criteria between the forms are inadequate, and in Epistemology, Semantics and Educational Theory 1984, Evers and Walker attempt to highlight logical inconsistencies within Hirst's thesis.

29 Hirst P.H. Peters R.S. The Logic of Education 1970, p 6.

30 Harris K. Education and Knowledge 1979, p 80.

31 Wittgenstein L. Wittgenstein and the Vienna Circle 1979, p 113.

32 Wittgenstein L. Philosophical Investigations 1953, p 31.

33 Ibid., p 48.

34 Lakatos I. Mathematics, Science and Epistemology 1978, p 228.

35 Hirst P.H. and Peters R.S. 1970.

36 Wittgenstein L. Tractatus Logico-Philosophicus 1961.

37 Wittgenstein L. On Certainty 1969.

38 Wittgenstein L. 1961, p 74.

39 Edwards J.C. Ethics without Philosophy 1982.

40 Wittgenstein L. 1953, p vii.

41 Wittgenstein L. Culture and Value 1977, p 7.

42 Ibid., p 55.

43 Lakatos I. 1978, see esp. ch. 11.

44 Gellner E. Words and Things 1968.

45 Wittgenstein L. 1953, p 49.

46 Moore G.E. Philosophical Papers 1959, p 315.

47 Peters R.S. Ethics and Education 1966, p 18.

48 Locke J. An Essay Concerning Human Understanding first published 1690, referred to here in the Woozley edition, Collins, 1964, p 58.

49 Ibid..

50 Aspin D.N. "Philosophy of Education", 1982, p 11.

51 Ibid., p 12.

52 Peters R.S. "Philosophy of Education", in Hirst P.H. ed. 1983, p 50.

53 Carr W. "Review", J. Curric. Studies, 17:1, 1985, p 117.

54 Schenck J.R. An Analysis of the Concepts of Curriculum through Wittgenstein's Concept of Language Games 1978.

55 Jonathan R.M. Educational Theory: Its Nature Scope and Limits 1981.

56 Ibid., p 93.

57 Ibid., p 116.

58 Ibid., p 33.

59 Ibid., p 241.

60 Peters R.S. Philosophy and the Education of Teachers 1977, p 136.

61 Jonathan R.M. 1981, p 84.

62 Ibid., p 81.

63 Rizvi F. The Fact-Value Distinction and the Logic of Educational Theory 1983.

64 Ibid., p 219.

65 Ibid..

66 Ibid., p 221.

67 Ibid., p 225.

68 Ibid., p 226.

69 Wittgenstein L. 1961, p 74.

———oOo———

CHAPTER 2

EMPIRICIST FOUNDATIONALIST EPISTEMOLOGY AND ITS IMPLICATIONS FOR EDUCATIONAL THEORY

In Chapter 1 I suggested that the popularity of Hirst's account of educational theory could be attributed partly to its interrelationship with the influential 'forms of knowledge' thesis and the method of Analytic Philosophy of Education (APE). In this chapter I suggest that, as APE has come under increasing attack, it has retreated into the role of modest supporter of the task of producing a conceptualisation of a research problem prior to empirical research taking place. I argue that, while Hirst and O'Connor's views of educational theory seem opposed, they can in fact be seen to reinforce each other within a common epistemology - that of foundational empiricism. Within this epistemology both Hirst and O'Connor seem to suggest that value-free knowledge about education is possible. In the case of O'Connor educational **'facts'** are supposedly ascertained by following the methods claimed by positivists to be those characteristic of natural science. In the case of Hirst, analysis of educational language is supposed to guarantee the **'correct'** or 'standard' application of words, supposedly by following the later philosophy of Wittgenstein.

I go on to argue that both views of educational theory offer the possibility of enhanced status to the purveyors of 'facts' or analytic 'correctness', for if rational action depends upon knowledge of the 'facts' or analytic 'correctness' then educational theorists seem to be the putative guardians of educational rationality. I suggest that the legacy of Hirst and O'Connor is so entrenched in much current educational theorising that it sets the parameters within which much research, curriculum design and evaluation take place. In particular we seem to be left with the isolation of educational policy from both theory and

practice which is reflected in the institutional arrangements within which each is carried out. I conclude the chapter with an example of a recent curriculum initiative in an attempt to illustrate some of the implications of the particular epistemological position that I am concerned to criticise.

Empiricist Foundationalist Epistemology

The idea that knowledge could be based on secure foundations can in modern times be traced back at least as far as Descartes' search for some indubitable premise secure enough to hold the weight of all other premises that can be logically deduced from it. [1] Much of our present idea of the relationship between knowledge, certainty and doubt can be traced back to this "foundationalist" idea.

While we may **believe** that something is the case, many philosophers - for example Woozley, Ayer, Scheffler - hold that we can only be said to **know** it if we can **justify** our belief against rational doubt by giving a series of **reasons** that can be traced back to something (a foundation or a stop) which is held to be certain. If we cannot do this we end up with an infinite regress of reasons and are in the disastrous position of having to know an **infinite** number of things before **anything** can be known.

The regress is usually halted in one of two ways. Empiricists see the regress halting at the level of sense data whereas rationalists see the regress halting at their postulate of some sort of innate knowledge. The problem for empiricists is that our senses sometimes deceive us. Descartes' solution to this problem was to posit a benevolent God who would ensure that our senses were not invariably deceived. [2]

A more recent solution is to deny the validity of foundationalism and with it to deny the coherence of universal doubt by arguing that doubt only makes sense against a background of certainty. In other words if most things were not certain then it would not be possible to have a concept of doubt. Since ordinary language seems to presuppose that most things are certain then an acceptance of the epistemic authority of ordinary language seems to suggest that universal doubt is incoherent. However this argument relies upon our acceptance that ordinary language has epistemic authority, and while this may be true for medium-sized physical objects as Wittgenstein argues in On Certainty, [3] it is not necessarily universally true unless with Wittgenstein we accept that science forms the basis of a "system of belief" and agree in turn that the existence of medium-sized physical objects forms the basis of our science. The difficulty with Wittgenstein's argument is that it seems to lead to relativism in that truth seems to be relative to a "system of belief".

The phenomenalist answer to the problem of finding a foundation for knowledge (as in empiricism) suffers from the difficulty that a sense datum is neither true nor false and so cannot function as a foundation. Sense data need to be recorded as propositions but the gap between proposition and datum is sufficient to allow doubt to creep back in. We seem either to have to accept that individual introspection is always reliable though, as well as being implausible, this position is also incomprehensible if we follow Wittgenstein's discussion regarding sensations - his "Sensation S" [4]. Alternatively we have to appeal to science to justify our perceptual experience but this involves us in appealing to science to justify science and this circularity gets us no further with making sense of foundational empiricism.

It is worth noting the irony in APE's accepting the foundational empiricist framework with its attendant conceptual-empirical distinction while at the

same time being derived from Wittgenstein's later philosophy, one of whose main thrusts is to deny the very framework which APE accepts. Nevertheless the idea of man alone in the world picking up sense data, organising the data to produce knowledge of the world and making decisions about what to do in the world on the basis of that knowledge is a very powerful idea. On the other hand, as Holland has argued, empiricism tends to lead to "stunted epistemology and no philosophy of education worth mentioning". [5] This is because the empiricist need only be exposed to the **world**, not to other **people** with whom the individual might interact, in order to **understand.** In other words empiricism seems to leave language as something that will take care of itself.

Perhaps another reason apart from the perceived absence of an alternative, for the continued acceptance of foundational empiricism by some educational theorists, is the recent interest shown in cybernetic models of learning and "information technology". The possibility afforded by technological advance that much more information could be made more easily accessible to more people has tended to reinforce empiricist accounts of rationality. This is because the empiricist idea that rational decision-making depends upon taking into account all the relevant 'facts' was always damaged by the empirical **im**possibility of actually getting hold of all of the facts. The advent of the "information technology revolution" seems to have turned this impossibility into a mere technical difficulty.

In addition recent developments in Artificial Intelligence have suggested to some psychologists [6] that the system whereby a computer inputs information, processes it according to a program and outputs a signal which is translated by robotics into action, could provide a useful and informative contrast to the way a human being might input information using the senses, process it

according to "cognitive structure", and output signals neurophysiologically to muscles in order to act.

On this view educational theory may well be concerned with refining the models of learning we operate with, as is for example the case with Papert's [7] concern with the elimination of "bugs" in thinking. Papert suggests that the computer programmer's concept of "bug" is a "powerful idea" that enables us to think more confidently and effectively. Alternatively educational theory can be regarded as concerned with the elaboration of the material conditions assumed by the model. Interestingly it is the construction and production of hardware and software necessary for efficient speech recognition and translation systems that seem to be the most difficult set of material conditions to elaborate. [8] Perhaps this difficulty is parallelled by the problem that the ideas that human meaning poses for social scientists and perhaps this is why some educational theorists have accepted the shortcut that APE seems to offer.

I want to suggest that, while the views of O'Connor and Hirst on educational theory are often believed to be contradictory, their positions can also be seen mutually to reinforce a prevalent view of educational research that likens educational research to empiricist versions of physical scientific research, with APE taking on the task of hypostatising meaning.

Just as physical scientific research is supposed to proceed by isolating variables, varying experimental conditions, making causal connections and drawing conclusions between variables that can be acted upon, so too educational research is supposed to proceed in the same way. However educational researchers are faced with special difficulties when attempting to isolate the variables: first there is the difficulty of accounting for extraneous

variables; second there is the difficulty with accounting for the difference in meaning that the variables have for researchers and researched, what Giddens calls the "double hermeneutic". [9] That is to say that the variables not only relate to the conversation between observer and observed community but also to the conversation of the observed community itself. The third and perhaps the most serious difficulty concerns the **application** of the research, since the very terms in which the future will have to be characterised are not yet necessarily all available to the researcher at the time at which he completes his research. I suggest that APE, seen as the activity of 'ground clearing' that takes place prior to and separate from the actual empirical research, has been widely regarded as capable of fulfilling the equivalent of the 'isolation of variables' stage of the empiricist research procedure. By offering the possibility of hypostatising meaning, APE has been supposed to guarantee that the assignation of the variables could be held constant throughout the research and its application so that the researchers could proceed according to models apotheosized by a commitment to empiricist epistemology and procedure.

APE can thus be seen to purport to offer the theoretical foundations for what is often referred to as "the conceptualisation of a research problem". There remains the idea that analysis of language can enable the educational researcher to overcome the sort of problems that seem to trouble some other social scientists, such as the issue of causality, the importance of taking into account intention and purpose, and the importance of sometimes going beyond an actor's own account of his intentions. The articulation of the APE research programme can thus be seen to support and reinforce empiricist epistemology.

Furthermore just as physical scientific research is supposed to provide knowledge or theory which guides practice, (for example: isolate the variables

pressure and depth, measure pressure and depth under various conditions, discover a relationship, conclude that pressure increases linearly with depth. Therefore when diving wear a pressure suit.) so too educational theory is supposed to guide practice. However the auxiliary hypotheses, the procedures of manufacture, the agreed methods of testing that characterise the diving suit example, seem to be missing in the educational case and so even if the empiricist research procedure were itself adequate there would still be no practical guidance of the type sought. The frequent requests for greater relevance of educational research and theory [10] and frequent complaints about the value of studying much of what counts as theory in some Colleges and Departments of Education [11] might be related to these deficiencies in empiricist epistemology and research procedures.

I am arguing that while APE is supposedly derived from Wittgenstein's later philosophy, much of which is directed against foundational empiricism, APE can in fact be viewed as a sort of lifebuoy which has kept empiricist educational research afloat. This can be illustrated by reference to J. Wilson's Philosophy and Educational Research [12]. Wilson argues that educational research in 1972 was in a mess and that "a good deal of the work of research in Education will have to be done from scratch." [13] Despite this prescription and the passing of fourteen or so years, there is reason to suppose that Wilson would argue and prescribe in the same way today. Indeed much of his output is still concerned to correct what he sees is the lamentable state of educational theory and research [14]. While Wilson accepts the importance of empirical research, he argues that researchers spend too little time thinking about what the parameters of their research might mean and too little time listening to what philosophers were telling them about the importance of "conceptual clarity". Apparently empirical research is all right as long as it is remembered that it involves conceptual matters which are philosophical concerns. Implicit in

Wilson's work is the commitment to the still accepted tenet of the necessary conceptual-empirical distinction and with it the necessity of a shared responsibility in educational research between psychologists, sociologists and philosophers.

The Professionalisation of Educational Theory

I earlier argued that APE sought to establish a connection between ordinary language and the professional practice of philosophical analysis of ordinary language. Walker summarises this connection as follows,

> a) The criteria for the correct use of a commonsense concept are discovered by analysing the use of the corresponding ordinary language word(s);
> b) The structures of commonsense conceptual systems are discovered by analysing the use of the corresponding ordinary language words;
> c) Ordinary language is conceptually reliable;
> d) Linguistic relations are to be used as evidence for conceptual relations such as 'logical necessity' and 'conceptual connection';
> e) Conceptual relations can be shown, for example by transcendental arguments, to have normative implications for theoretical and social practice. [15]

Walker puts his summary in this way in order to emphasise that there is a theory at work here, a theory of the relations between ordinary language and philosophy. This theory sets the parameters for both the identification of ordinary language and the theoretical output that APE extracts from it. The point for Walker is that a theory needs to be tested by criteria that **go beyond** the theory itself, whereas APE's seem to assume that a theory can be tested by reference to criteria that are **within** the theory. According to Walker APE's seem not to see this as a problem [16]. By neglecting one major area of mainstream philosophy, the philosophy of science, APE theorists are claimed by Walker to miss critical implications of work which

> teems with implications for the way philosophy of education might be done, and therefore for the pursuit of educational theory. [17]

This neglect can be illustrated by reference to the 'forms of knowledge' thesis. Hirst argues that logically distinct forms of knowledge are necessary to the development of a rational mind. [18] Leaving for one moment Hirst's admission that

> it is not at all clear what is meant by synthesising knowledge achieved through the use of logically quite distinct conceptual schemes.[19]

we may wonder how we are to argue against Hirst, for he is always able to retort that any criticism of the forms of knowledge thesis is like

> asking for a justification for any development of the rational mind at all. [20]

The objector to the forms thesis seems either to lack a rational mind or lacks a sufficient grasp of the forms. In either case it looks as if there is no choice in the matter of whether to accept the forms thesis. By accepting the self reference of the APE paradigm of which the forms thesis is a part, the objector has already taken the decisive step. Once forced to accept the forms of knowledge thesis then the objector has also accepted that one of the forms can have epistemic authority over the others. That is to say that philosophy has authority in determining what the other forms might be and what limits might be placed upon them.

Since within APE educational theory is regarded as a synthesis of the forms which guides practice, then APE appears to be the touchstone for everything that might count as education - and philosophers appear to warrant enhanced status above that of other theorists and above that of practitioners when it comes to affecting what goes on in educational institutions. Moreover the perspective offered by APE's appears to require the sort of institutional arrangements that reflect this enhanced status.

When the 'forms' thesis is combined with the thesis of education as initiation which Peters advanced [21] then there is a **logical** necessity to maintain a set

of masters of the forms so that others can be educated. The net effect of accepting the self reference of the APE paradigm is to accept the idea that **logical** theses, **transcendental** arguments and **correct** analyses can be provided by professionally privileged theorists in order to guide educational practice. As a result all prospective educational practitioners would seem to need to pass through the philosopher's and any other theorist's tutelage that the perspective warranted. The idea that an 'immersion' in psychological, sociological and philosophical theory with perhaps a touch of history might help practitioners was institutionalised in the Colleges and Departments of Education of the 1960's and early 70's.

As APE started to decline (perhaps because people became bored with endless analyses of terms like education, indoctrination and autonomy [22], perhaps also because people came to question the relevance of these analyses and to expose some of the inconsistencies within APE), APE may be seen to have retreated from its more substantive theses of liberalism and rationalism to the more modest role of 'underlabourer' to empirical research. There is more than a small change in the division of labour at stake here. The weakening of APE led to the resurrection of something like O'Connor's version of the nature of educational theory with the 'analysis of language' thesis supporting it. "Educational theory" became knowledge about the most efficient method of carrying out some predetermined and self-referential policy. The institutional arrangements that were partly legitimated by APE's claim to supply 'transcendental' arguments, 'logical' requirements and 'correct' analyses were now helpful in reinforcing the claim of empirical research to supply 'objective' knowledge about educational methods that might provide temporary foundations upon which to rest justificatory claims about educational practice.

As a result theory may now be seen to be in the middle of a three way split of policy, theory and practice with policy-makers assuming exclusive responsibility for the formulation of educational aims and with theorists attempting to work out the most efficient means of achieving those aims. The institutional arrangements that previously were set up to reflect the theorist's position as the supplier of foundations for practice may now be seen to support the idea that educational policy should be self-referential. More precisely theoretical institutions may now be seen to legitimise whatever educational policy is proposed by those who happen to have the power to enforce their policy.

As long as educational theory and research are viewed from within an empiricist foundationalist framework, then it might be reasonably claimed that the institutional arrangements within which much educational theorising and all teacher training takes place, should continue. Furthermore as long as these institutional arrangements are assumed by policy makers and required by their policy then the 'logic' behind those arrangements is likely to reflect the idea that policy guides theory which guides practice. In such a situation it is hardly surprising that some teachers as practitioners should view theory as an unnecessary appendage in a chain of instrumental reasoning in which they seem to be the final link.

Many of those who now work within the Colleges and Departments of Education and who might be expected to be concerned with educational theory, have been left with some combination of the old 'immersing teachers in theory' view of their task or alternatively have assumed the instrumental task of explaining curriculum initiatives to teachers or have devised curriculum support materials for teachers to use. As a result some Colleges and Departments have been "strung along" by the latest curriculum initiative and the latest attempt

to find some new form of discourse that is going to act as a standard for all others - for example, the introduction of computing into the curriculum or increasing the 'relevance' of the curriculum or preparing children for work or whatever.

The problems with this instrumental view of educational theory are basically those that I advanced against O'Connor: first, there is the dubious validity of the supposition that there could never be a consensus about educational policy. It is supposed by the proponents of this latest version of instrumentalism that the formulation of policy is outside of logical reasoning. Furthermore, educational policy for such people is not concerned with any empirical testing since empirical testing is supposed by them to be a theoretical matter confined to the measurement of efficiency of method. On this view educational policy is immune from any referents outside itself. It simply directs educational practice and its directives cannot be challenged.

As a result the idea that theory should guide practice is supplemented with the idea that policy guides practice. The modest role for theory as supplier of curriculum support materials can only be sustained if it is assumed that curriculum support materials are best produced in isolation from their context of use. However there seems to be little to support this assumption and plenty to go against it. For example it is not clear how curriculum materials could be devised without regard to the circumstances in which they might be used. Furthermore the testing of such materials seems only to be possible in circumstances that best resemble the circumstances in which they will be used. It looks then as if theory drops out of the equation altogether. We might ask what role theoretical institutions, in the form of Colleges and Departments of Education, are to play other than to legitimise educational policy and perhaps

to insulate educational policy-makers from the complaints of teachers who might feel that "things weren't working out too well."

Second, the problem with this strong sense of 'policy guiding practice' is that it presupposes that both objectives and methods can be precisely specified in advance of the situation to which they will apply. There is also the practical difficulty of knowing just how much detail is required in a policy statement. There is some evidence from attempts at 'centre-periphery' curriculum planning to suggest that policy statements are not a particularly effective way of getting teachers to change their practices [23]. Instead I suggest in advance of a discussion in Chapter 8 that teachers need to 'make a policy their own' in the sense that their discourse incorporates the evaluative discourse of the policy. That is not to say that whether an utterance is evaluative or descriptive can be decided once and for all. Rather it is to say that the way that teachers use descriptive propositions is in accordance with the way they interpret the evaluative discourse of a policy statement and vice-versa. As Rizvi [24] has argued, the separation of evaluative from descriptive utterances assumed by the proponents of both the policy directing practice view and means-ends curriculum planning as if utterances could be clearly separated into evaluative or descriptive categories, is a view that we should reject.

16-18s in Scotland; an Action Plan

Let us now examine a recent (1983) curriculum initiative in order to examine the ways in which this initiative embodies many of the implications for educational theory that arise out of the dominance of empiricist foundationalism as the epistemological framework within which much theory is currently located.

The initiative was announced as follows:

> An innovative new educational system is now available in Scottish colleges of further education and the senior levels of secondary schools. A framework of new courses based on modules or short units of study, leading to the award of a single new National Certificate, makes available wider opportunities for students and employers. [25]

This "innovative new educational system" is the result of a process that started with a consultative paper on the first two years of post compulsory education [26] published by the Scottish Education Department (SED) in 1979. Apparently there was a "disturbingly large proportion of young people" [27] who do not continue to attend an educational institution after they reach the age of 16 and the participation rate in Further Education compared unfavourably with that of many other industrial countries. [28]

While the author of the Consultative Document suggests that we should be alarmed by this low participation rate, there is no mention of why we should find this alarming. The un-named author goes on to suggest that the arrangements existing in 1979 "have been criticised as being too complex and fragmented" [29] though the critic(s) and their arguments are not named. Furthermore there was apparently "a lack of coherence caused by the separation of school education from further education and the separation of further education from training" [30] causing us to question "the adequacy of the preparation for working life." [31]

According to the consultative document non-vocational education takes place in Schools and vocational education is supposed to take place in Colleges of Further Education [32]. In a brief reference to the place of "general studies" in further education, the document expresses concern that both employer's and student's time for these studies is being misused. [33] This criticism is supported with the contention that "educational experiences should prepare young people for their role as workers" [34]. "General studies" not apparently being about

such preparation, is therefore seen to be a misuse of time. Similarly it is suggested that the school curriculum is ineffective because young people are not interested in it, with the corollary that if the school curriculum were more vocational then more young people would be motivated to learn. [35] There is no mention here of other possible causes of lack of motivation, such as a dissatisfaction with the society and its institutions which students are supposed to be prepared to join, a realistic appraisal of the employment opportunities in Scotland, or a feeling that there is something gravely mistaken about such a view of education anyway.

The Consultative Document concludes with a section on the organisational changes that might be necessitated by a change in the 16 plus curriculum. This seems odd since we would expect that there were some questions prior to organisational questions which a **consultative** document might address, such as what problems might arise if people chose to return to educational institutions at some time after they reach 16? Does a non-vocational education necessarily lead to lack of motivation? Do we know what is the nature of the work for which young people are to be prepared or even if there is any such work? We might also find it odd that a **consultative** document should **recommend** that schools and colleges could be grouped as consortia so avoiding low numbers of students in classes at individual institutions. [36]

My point here is not to expose some of the inconsistencies and question-begging statements undoubtedly contained in this document. Nor is it to reinforce the sociological point that Humes makes in his The Leadership Class in Scottish Education [37] concerning the relative isolation of the Directorate from others involved in Scottish Education. Rather my point is to show that this (1979) document is only a 'consultation' in a very limited sense, that sense being given by six questions which respondents are invited to answer:

(1) What can be done to induce more young people to participate in post-compulsory education and training?
(2) How can the education service help to improve the prospects of young people on the employment market?
(3) What changes are needed in the range of courses offered in the first two years of post-compulsory education?
(4) What can be done to achieve closer collaboration between schools and colleges of further education?
(5) Is there scope for the development of new types of institutions such as tertiary colleges, or for a measure of specialisation among secondary schools?
(6) What other changes are required in the organisation and structure of the education service to resolve the issues discussed in this paper? [38]

These six questions already point the way forward. The consultation is not meant to generate debate about **whether** the aims of post-compulsory education **should** be primarily vocational. Nor is the consultation meant to generate debate about **whether** more young people **should** participate in post-compulsory education and **whether** their employment prospects **can** be improved by the education service. The SED seems to expect that every potential respondent to their Consultative Document simply accepts that unemployment results from an educational deficiency in the unemployed person rather than from a general shortage of jobs on offer. By limiting the enquiry in this way, the framework for policy making has already been set. A respondent either reinforces the framework or gives answers deemed irrelevant. The framework for policy making is self-referential.

It was therefore no surprise in 1983 when the SED reported in Action Plan [39] that "all bodies in education see a clear need for reform" [40], this reform having been presupposed by question 3 of the consultative paper. The Action Plan presents "the plan of action which the Government intend to follow" and while the plan is "not prescriptive neither is it simply part of a further consultation process." [41] The author of the Action Plan detects two major influences on the curriculum: first the rate of change of society and second

the debate surrounding what appears to be a reference to something like a 'forms of knowledge' thesis.

> Knowledge required by contemporary society can be classified into several forms of learning, and a young person's learning is deficient if it does not include all of the forms. [42]

However this brief reference to that theory is speedily dismissed and no further reference to any normative educational theory is made. Furthermore since "there is no consensus on such key matters as course descriptors, assessment and certification" [43] the author proceeds to prescribe the form that these should take. Such prescription is commensurate with a view of educational policy-making that has no place for the notion of normative educational theory, thus reinforcing my argument that Action Plan is a curricular innovation that is conceived within the epistemic framework of foundationalist empiricism.

The proposed remedy for the ills suggested in the consultative document is that courses should be divided into 40 hour modules which will be internally assessed by teachers on whose recommendations the Scottish Vocational Educational Council (SCOTVEC) will certify the attainment of the learning outcomes which are to be listed on each module. Students can be **counselled** to determine their **needs** and these needs can be matched with the learning outcomes from one thousand or so modules to create a programme of study.

The advantages of this remedy are supposed by the SED to be that programmes of study can be flexible to meet students' and employers' needs. Second, since students choose their own programmes of study their motivation is supposed to increase. Finally increased flexibility is supposed to enable Education Authorities to plan their provision more cost-effectively by only offering some modules in certain locations. The difficulty with teaching the classes that might consist of students of widely differing abilities is to be met by

producing packages of learning material that students can work through at their own pace. Moreover it is envisaged that further cost effectiveness could be achieved if industrial establishments could certify attainment of certain learning outcomes while students were on placements or on Y.T.S. mode A schemes or actually in full time employment [44]. Industrial liaison generally is to be encouraged since "schools in general are open to the criticism that they have paid insufficient attention to the world of industry and commerce". [45] It is interesting to note that the Action Plan does not involve those students who take Scottish "Highers" prior to going on to University. It appears that for the moment anyway, an academic education is on offer to the minority of Scottish students aged 16 and over, while for the majority, a pre-vocational education is deemed appropriate.

In the next chapter I argue that many of the assumptions behind Action Plan are common to some other recent curriculum initiatives and that these assumptions embody a type of thinking that I earlier characterised as "objectivistic". For the moment it is worth noting how Action Plan development continues to follow what I earlier described as the centralist strategy of 'policy guiding practice' with theoreticians being left only two possible roles. Either theory is concerned with the devising and coordination of curriculum support materials. The announcement that the SED were to set up a "Curriculum Advice and Support Team" (CAST) in a College of Education [46] is evidence of the limited role for theory within foundationalist empiricist epistemology.

Alternatively theoreticians simply legitimise the curriculum initiative itself by explaining it to practitioners during In-Service training sessions or by doing curriculum development work under the guise of research. In a letter titled "SED Funded Research - 1985/86 and Beyond" [47] the SED invite interested

parties to submit outline proposals for research into "Articulation" and "Assessment". The guidelines for the research into "Articulation" are given as follows:

> It is an objective of the 16+ Development Programme that articulation should be achieved between the modular provision, the SCE (at both Standard and 'H' grade), higher education and experiential learning chiefly in the work/industrial training context, ... [48]

The letter goes on to pose nine questions which

> it is intended that the investigation will address[49]

and the answers to which

> will indicate the extent to which policy is matched by practice and help to identify areas requiring further development. [50]

Clearly the research is not meant to question the 16+ policy itself. The research is seen as part of the development process. Even if the SED were to set up a curriculum evaluation project, the present way that evaluation is conceived within the foundationalist, empiricist framework would preclude an examination of the assumptions behind the policy on the grounds that such assumptions are the **foundations** of the policy. The question about agreement over the foundations does not arise.

Finally this example illustrates the way that the allocation of resources is central to an educational initiative and how the allocation of resources is presently considered to be separate from any theoretical consideration. Now if educational theory is to be concerned even minimally with **what** is to be done in educational institutions then resource allocation would seem to have to be included within theoretical concerns. Consequently any rejection of foundational empiricism might involve greater integration of resource allocation with theory.

I have tried to show via this example of the Action Plan that the present dominance of the foundationalist empiricist theoretical framework within

education leads to the diminution of the role of theory to the extent that it is simply accepted that policy matters can never be justified with arguments that go beyond appeals to economic considerations, to majority public interest or to political/social/moral norms. As a result consultations about policy are necessarily limited. We do not have the theoretical apparatus necessary to know how a variety of contributions from a variety of perspectives might combine or be settled if they conflict. In the absence of educational theory we seem to be left with the idea that unexamined assumptions behind policy statements must go unchallenged and that is one danger with an anti-theoretic view.

The dominance of foundationalist empiricist epistemology within education may be seen to leave us with a possibly relativistic determination of educational ends in abstraction from a supposedly objectivistic determination of educational means. However, as I argue in chapter 4, the so-called "empirical" research procedure cannot enable us to meet the criterion of objectivity assumed within the epistemic framework of foundationalist empiricism. In the next chapter I further the idea that this framework underpins much current thinking about and within some educational practices to their detriment.

———oOo———

NOTES AND REFERENCES

1 The famous 'cogito ergo sum' put forward in the Discourse on Method Descartes R. 1912, now in many editions.

2 Ibid., p 28.

3 Wittgenstein L. On Certainty 1977.

4 Wittgenstein L. Philosophical Investigations 1953, pp 92-95. The discussion of "Sensation S" merges into a discussion of "pain". Wittgenstein tries to imagine the case where someone writes "S" in a diary every time that he experiences a particular sensation. Wittgenstein attempts to show that such a performance is meaningless unless it is sometimes accompanied by some other change in behaviour which is a recognised part of our "form of life" so that somene else might be able to check the occurrence of the sensation by asking questions like "what do you feel?", "is it a permanent sensation?" and so on.

5 Holland R.F. Against Empiricism 1980, p 10.

6 M. Boden discusses some of these in her Artificial Intelligence and Natural Man 1977.

7 Papert S. Mindstorms: Children, Computers, and Powerful Ideas 1980.

8 Putnam H. Meaning and the Moral Sciences 1978, p 57, reports that "several million dollars and many man hours of bright people's time was spent on ... the project of making **explicit** the constraints involved in translation ... Result essentially **complete failure.**"

9 Giddens A. New Rules of Sociological Method 1976, p 62.

10 Dearden R.F. Theory and Practice in Education 1984, p 4.

11 Ibid.. See also Lloyd D.I. "Theory and Practice" 1976, p 98.

12 Wilson J. Philosophy and Educational Research 1972.

13 Ibid., p 13.

14 Wilson J. "The Credibility of Educational Studies", Oxford Review of Education, 8, 1982, pp 3-19.

15 Walker J. "Common Sense, Ordinary Language and 'Necessity' in Liberal Rational Philosophy of Education", in Evers C.W. Walker J. 1984, p 65.

16 Ibid., p 70.

17 Walker J. "Philosophy and the Study of Education: A Critique of the Commonsense Consensus", in Evers C.W. Walker J. 1984, p 19.

18 Hirst P.H. "Liberal Education and the Nature of Knowledge", in Archambault R.D. ed. 1965, p 126.

19 Hirst P.H. "Educational Theory", in Tibble J.W. ed. 1966, p 36.

20 Hirst P.H. 1965, p 126.

21 Peters R.S. Ethics and Education 1966, pp 46-91.

22 There are many examples of this kind of analysis in The International Library of the Philosophy of Education, general editor R.S. Peters, publisher Routledge Kegan Paul. For example;
Dearden R.F. Hirst P.H. Peters R.S. editors Education and the Development of Reason 1972.
Snook I.A. editor Concepts of Indoctrination 1972.
Peters R.S. editor The Concept of Education 1967.

23 Stenhouse L. An Introduction to Curriculum Development 1975, p 218.

24 Rizvi F. The Fact-Value Distinction and the Logic of Educational Theory 1983.

25 SED Factsheet 31 1985, p 1.

26 SED 16-18s in Scotland. The First Two Years of Post-Compulsory Education 1979.

27 Ibid., p 1.

28 Ibid..

29 Ibid., p 2.

30 Ibid..

31 Ibid., p 3.

32 Ibid., p 11.
33 Ibid., p 13.
34 Ibid., p 17.
35 Ibid..
36 Ibid., p 22.
37 Humes W. The Leadership Class in Scottish Education 1986.
38 SED 1979, p 27.
39 SED 16-18s in Scotland. An Action Plan 1983.
40 Ibid., p 3.
41 Ibid..
42 Ibid., p 6.
43 Ibid., p 15.
44 Ibid., p 46.
45 Ibid., p 43.
46 See Scottish Office News Release of 31.5.85.

> Mr. Allan Stewart MP, Minister for Industry and Education at the Scottish Office, today announced the setting up of a team to work on curriculum development and staff support in further education. ... The team will be based at Jordanhill College of Education and will work closely with HM Inspectorate, the School of Further Education and education authorities on staff training and development programmes.

47 SED "SED Funded Research - 1985/86 and Beyond" letter dated 3.4.85. and signed by R.S. Johnston, HM Chief Inspector of Schools.
48 Ibid., p 1.
49 Ibid., p 2.
50 Ibid., p 3.

——————oOo——————

CHAPTER 3

OBJECTIVISM AND ITS IMPLICATIONS FOR EDUCATIONAL PRACTICE

The previous chapter was concerned to claim that APE and O'Connor's account of educational theory reinforce each other within a common epistemology - that of foundationalist empiricism - and how that epistemology can be seen to underpin the presently common view that educational theorists should be concerned with maximising the efficiency of means to the exclusion of debate about those ends and values to which the means are supposed to be directed. In this chapter I argue that an adherence to this epistemology also lies behind those attitudes and values that have structured and directed some recent curricular and administrative recommendations. I go on to claim that some of these recommendations are educationally undesirable.

Such attitudes and values may be characterised by what Oakeshott calls the "rationalist disposition" [1] or by what I call "objectivism". I use the term 'objectivist' to denote a hypothetical character who might be supposed to support the kind of recommendations against which I shall strongly inveigh. Foundationalist epistemologies of both rationalist and empiricist kinds underpin objectivism through the idea that beliefs can be justified by a chain of reasons that end in a foundation of certainty and the further idea that researchers may elucidate this chain of reasons in order to substantiate claims to knowledge.

As I argued in chapter 1, the attractions of foundationalist empiricism seem to result from its being perceived by many educational theorists as the framework within which natural scientists work. It is commonly accepted that the natural sciences are responsible for an increase in the material well-being of those societies that support scientific endeavour. Some social scientists argue that

this material well-being could be increased further if the social sciences were able to emulate the natural sciences and if members of a society were to give up something of their sense of community and free-will in favour of their being willing to be regarded as 'objects' to which causal generalisations would be appropriate. For example Gellner suggests that members of a society might agree to run their public institutions on instrumental lines in order to have increased private freedom. He advocates

> a pluralist affluent society, in which people are free, economically and politically, to pursue their romantic fulfilment at home, while in the public sphere good instrumental institutions prevent tyranny and watch over the overall economic performance ... What on earth is wrong with having one's expression at home (paperback classics, hi-fi) and leaving the public sphere to soulless pragmatism? [2]

The educational consequence of this compromise may be seen to be reflected in the dichotomy between vocational and academic education, about which some British industrialists and businessman complain. It is as if vocational education should be concerned with preparing people for a purely instrumental role at work whereas an academic education should be concerned with the development of people's ability to express themselves "at home". O'Connor puts forward a variant of this view when he argues that

> What is needed, both at school level and in higher education is a large-scale switch to the study of natural science and mathematics. ... (As for the humanities) for those with a natural affinity for them, a minimal amount of elementary schooling will put them in a position to enjoy them if they wish to. [3]

In line with the compromise suggested by Gellner, O'Connor bases his argument on a distinction between an

> essential body of basic knowledge and techniques which are necessary for the efficient running of society ... and ... a wider body of skills and attitudes which encompass ... what journalists would call 'the cultural heritage of mankind' [4]

Recently the present British Government presented an economic argument making a similar case for a large-scale switch to vocational studies. This

argument has become so dominant in current educational debate that much curriculum development is presently concerned with the making and implementation of such a switch. [5] Jonathan refers to "the manpower service model of Education" [6] as **the** model upon which many modern curricular developments are based. It is worth quoting the list of assumptions she sees underlying this model.

A. **Society and the Good Life**
   1. The future is broadly predictable in principle, and education should prepare children for it.
   2. Technologists can/should specify the requirements for the future in terms of knowledge, skills and capacities.
   3. Where there are choices to be made, the criteria for evaluation are economic.
   4. Value is to be instrumentally assessed.

B. **The Function of Education**
   1. The education system is clearly failing, and must be radically changed.
   2. Educational change should be consumer-led. The consumers are industrialists, employers and the state.
   3. Education may/should be conflated with training, since we all agree it should be relevant and useful.
   4. Relevance and usefulness can be empirically established.

C. **The role of educators**
   1. Since education is a political matter, it is too important to be left in the hands of teachers. They must be "accountable".
   2. Educators should function as technicians responding to the "needs" of society, as identified by the consumers.

D. **The Social and Moral Status of the Learner**
   1. Preparing pupils for life is identified with preparation for their economic role.
   2. Educational benefit is to be assessed in social not individual terms.
   3. Collective welfare implies the adaption of the individual to social circumstance.

E. **The Nature and Function of Knowledge**
   1. The process of learning matters more than the content learnt.
   2. Obsolescence of specific skills implies the devaluation of informational learning.
   3. Generic "skills", independent of context, exist and are identifiable and transferable.
   4. Subject boundaries are unhelpful and arbitrary.
   5. Knowledge is infinitely subdivisible into "bits": epistemologically, the whole is simply the sum of its parts.
   6. The "bits" to be acquired are determined by the use to which they will be put, so that skill obsolescence implies radical retraining. [7]

In the remainder of this chapter I attempt to extract from these assumptions those features I see as related to and underpinned by empiricist foundationalist epistemology.

Objectivism and the 'Market'

The central difficulty with this epistemology for the objectivist is that it seems to leave the determination of desirable ends either to the vagaries of public interest or to political, social or moral norms that are impossible to quantify. However the idea that educational value can be instrumentally assessed according to economic criteria seems to offer the possibility of an objective determination of educational aims. I follow an argument of Gellner in order to explain how this possibility might have arisen.

Gellner argues that western European countries in the nineteenth and twentieth centuries may be characterised by the way in which a minority has exploited a large majority with no means of sustaining that exploitation other than through the idea of a "Danegeld state" which guarantees

> a steady spread of affluence, and the expectation - for the first time in history - of **continuous** improvement ... The expansion was oiled by a gradual inflation of the currency ... egalitarianism in education, and so forth. A regular and expected growth in income, social security and governmental responsibility for employment, constitute a permanent and growing bribe by means of which the system could purchase acquiescence from those who were not its most privileged beneficiaries. [8] (original emphasis)

However in the 1970's the supply of Danegeld started to dry up. Armed with neither carrot nor stick, what Gellner calls "the system" had to look to other things to sustain itself. Three elements seem to me to be implied in this search. First the success of a political appeal to the conservatism of the working class; second attempts to suggest that one or other aspect of the welfare state is primarily responsible for the present lack of "Danegeld".

Public education seems to be an ideal candidate for such a charge. For if it is assumed that public education forms the closed system necessary to support a utilitarian idea of maximising efficiency, then it becomes easy to blame the public education system for its inability to produce the sort and number of citizens needed to maintain the supply of Danegeld which keeps the system running. Moreover the state education system itself requires a considerable amount of Danegeld to sustain it, thus reducing the amount available for everything else. Hence the state education system is seen to be worthy of censure on two counts. The third element is the various attempts to distribute the small amount of Danegeld that there is more fairly and thus to gain some sort of moral currency through a "legitimacy of distribution". According to Gellner [9] there are two possible ways that an industrial society may legitimately distribute the benefits at its disposal: either the so-called "free market" or Marxism. Gellner speedily dismisses the Marxist option and concentrates on the idea of a 'market'. As he puts it.

> men have needs and desires, and work so as to satisfy these. Their productivity grows immensely through the division of labour and specialisation. This in turn raises the question of the terms on which mutually complementary producers exchange their products. A 'free market' is best: it stimulates further endeavour into production of those goods which 'at the margin' still give most satisfaction. The market price, if not warped by interference, is not merely the one leading to the best utilisation of effort, but also constitutes a fair and legitimate price. [10]

Plainly the idea of a 'market' is the dominant model for such a distribution in Britain in the 1980's. As Gellner notes, the idea of a 'market' appears to offer the final foundation for empiricism in that this idea places

> the burden of decision to something empirical, testable, observable - namely observable preferences, demand and supply. [11]

The 'market' acts as a kind of neutral arbiter between competing interests that can be used to settle matters in a way that meets the objectivist's criterion for quantification of value according to how much people are prepared to spend to get what they want. However there are at least four difficulties with

the notion of distribution according to the 'market': first the 'market' only gives its verdict in an institutional and cultural context that is made and manipulated by men. Second industrial production is inseparable from an infra-structure the depth and extent of which makes it absurd to suppose that the contributions of individuals can be separated out. Third wants are not the same as needs and it is neither unreasonable nor improper that government should intervene in order to secure some longer term objectives against those which might be dictated by some of the short-term demands of the 'market'. Finally and most importantly, if government has to intervene, then the fruits of its intervention, far from presenting fresh challenges and opportunities, merely present opportunities for early exploitation of government decisions. That is to say, those who have early information about possible or likely consequences are most likely to do well out of a decision. This has been apparent most recently in the case of decisions to deregulate buses and to sell off nationalised industries but also becomes apparent in the case of decisions to close schools and to increase government support for the "assisted places scheme". For example if a decision is taken to close what is widely regarded as a good school on the grounds that its catchment area is too small and if it is proposed that pupils should be sent to what is widely regarded as a poor school, then however valid those evaluations might be, a parent who receives early information about the closure plans would be likely to benefit by moving home before a glut of property appears on the housing market due to increased numbers of parents in search of another good school.

The real difficulty with adopting the idea of a 'free-market' as neutral arbiter, is that people come to see through what might in reality be an illusion and the attempt to legitimate distribution is lost. Hence not only does self-interest become channelled to subvert the system but also "ideal conviction" is set to join forces with it. Gellner suggests that while the market might be an

excellent way of carrying out minor adjustments to the pattern of distribution, there is no substitute for political responsibility in the overall economic sphere. Recent government debates about "educational vouchers" and action to privatise the further education sector and to switch funding from institution-led courses to consumer-led courses (where the Manpower Services Commission is assumed to represent the consumer) seem to support the view that the present government in the U.K. operates on the model of dictating the patterns of direction and growth in education via market forces.

If the market is to be the final arbiter of educational worth, then logically there needs to be a commodity which can be marketed. In education this 'commodity' appears to be knowledge. Now empiricist epistemology supports the idea that knowledge consists in bundles of statements that somehow match the world; on this model educational institutions can offer the learner the opportunity to get hold of different combinations of these bundles of statements in the form of 'units of study' or 'modules'. It is not hard to find evidence to support the view that the 1970's and 1980's have seen a great increase in the numbers of courses, modules and units conceived along these lines that have been produced across the educational spectrum [12] suggesting a kind of 'assembly-line' notion of knowledge.

However we might wonder on what basis the learner is to make the choice between or among such units. Very often the answer appears to be on the basis of the jobs that are thought to be likely to be on offer. In other words, the supposed availability of certain types of job appears to be the ultimate arbiter in the choice of what is worth studying. Now no one would blame parents for considering that this is a useful way of viewing what some educational provision should be about. Few parents now want to see their offspring spending their post-school years unemployed? However such an

overall view of the function and utility of educational institutions is open to question on at least three counts.

First we can often only have a vague idea about what jobs in future, if any, there might be; it seems to make little sense to direct our whole educational effort towards preparing for people for jobs that can only be speculatively envisaged. Since educational output can never match employment demand precisely, there might always be some residual disappointment of expectation. At worst a vocational bias can amount to little more than a crude form of social engineering that may well be likely to fail. Furthermore the problem with a conception of learning that relies upon precise specifications of input and output is that there is little scope for encompassing the idea of the learner's being able to continue with something on his own and moreover to be able to do more than just one set of things - namely those skills etc. described or looked for in a job specification.

Second, failure to achieve vocational targets could easily lead to the opposite reaction, that is towards the idea that education should be directed at whatever children were interested in, as if children were somehow apart from the society which they are supposed to join. In other words when the curriculum is based on objectivist presuppositions regarding what might be called "pre-vocationalism" - and when "pre-vocationalism" is seen to fail, there is the possibility of a lurching towards the opposite idea of an extreme form of liberalism. (It may be that the present move towards "pre-vocationalism" is itself the result of a lurching in the opposite direction **away** from the liberal curricular ideas of the 1960's) However people not only want to earn their living but also want to play some part in determining the way a society might develop; and that seems for us to mean our being able to **criticise** existing institutions while still contributing to them. We need to

rebuild our boat while still remaining afloat, to use an analogy borrowed from Neurath. No one can totally **jettison** the society of which they are a part, any more than anyone can totally **shape** the society which they want to join.

Third, the idea of the market as ultimate arbiter ignores the fact that people also care about **what** they do and how they do it, not just the material rewards that their work brings. Were everybody to be totally concerned with material reward and were the utilitarian separation of work from leisure to be accepted, then we should end up having to apportion wealth on the basis of misery endured at work; and while there may be some need to reward people for doing unpleasant or dangerous work, that is no reason to suppose that such an apportionment could ever form the basis of an equitable incomes policy or fair basis for any kind of distribution of social goods or wealth. If it did, then there would be a tendency for people to make their particular occupation appear far more miserable than it actually was!

Even if these difficulties with instrumental assessments of value are ignored, the objectivist still faces the problem of devising the most efficient ways of acquiring knowledge and assessing how effectively it has been acquired. As I argued in chapter 2, these tasks might appear to the objectivist to be the preserve of the Colleges and Departments of Education who might be assigned the task of devising curricular experiments, the aim of which would be to produce curriculum support materials that maximise 'efficiency' where efficiency is defined as the inverse of the cost of each student taking a unit of study. The so-called "Information Technology" revolution is seen by many [13] to offer great possibilities here, for, if it is assumed that knowledge is readily available "at the touch of a button" as it were, then educationalists can concentrate on the technical matter of getting the appropriate equipment into

the right places and in a format suitable for people with differing levels of abilities.

The economic advantages of such a system arise out of the assumed reduction in the number of teachers and in the remuneration that is paid to them, for if some sort of elite group of educationalists could devise the software to run on such equipment, educational institutions could be staffed by technicians (perhaps called teachers). The claim that educational technicians should, in such a system, be paid substantially more than other types of technician could hardly be substantiated. Furthermore such a system would seem to offer the possibility of measuring teacher effectiveness, for if input and output can be measured and curricular method is assumed to be standardised, then any failure to achieve targets of cost efficiency can only be attributable to the inefficiency of the teacher.

While this scenario may be bleak and while few teachers might wish to contemplate its implementation, it is a perfect replica of the "manpower service model of education" described earlier and may be seen as the logical conclusion to objectivistic ideas about education that are underpinned by foundationalist empiricist epistemology. We may summarise these ideas as follows: educational values are supposed to be determined by appeals to the amount of money that people are prepared to spend to achieve them and can thus be determined mathematically, as can the selection of educational means by equating cost per "bit" of knowledge acquired - with efficiency.

The proximity of objectivism to mathematical positivism is readily apparent here. For example "Systems Theory" and "Operational Research" depend upon the notion that rational decision making is "concerned with resolution of ambiguity and is synonymous with mathematical decidability." [14] The idea that

claims to know might be settled by appeal to a form of discourse within which disagreements are rare, is an idea that has much attraction for the objectivist. Mathematics seems to be just such a form of discourse. An objectivist might argue that the physical sciences are successful because claims about the way the world is can be settled by linking those claims with a mathematical equation whose solution is determinate. The objectivity of those claims is ensured because disputes rarely break out over the solution to an equation. The attractions of this argument are such that many economists operate within what Hahn and Hollis call "orthodox Positivist tenets" [15]; it is therefore not surprising that economic positivism should supply the theoretical scaffolding which helps to support the "manpower service model of education". [16]

Further Education and Vocationalism

In the previous chapter I argued that teacher education is largely constituted within the Colleges and Departments of Education according to what I described as the empiricist idea that 'theory guides practice'. That is to say, trainees are **prepared** for their future role as teachers by some sort of structured immersion into those things that the Colleges and Departments deem as appropriate guides to the practice of teaching. In this section I argue that the same empiricist idea lies behind both the way in which vocational further education is institutionalised and the attitudes and values of those experts who presently design much of the vocational further education curriculum.

Vocational further education has recently been given much prominence through the incursion of the Manpower Services Commission (MSC) into the realm that was previously reserved for the Department of Education and Science and the Scottish Education Department. [17] Schemes like the Technical and Vocational Educational Initiative (TVEI), the Continuing Provision of Vocational Education (CPVE), the extension of the Youth Training Scheme (YTS), the Action Plan and

the recent Review of Vocational Qualifications (RVQ) embody some of the recent moves towards what I call vocationalism in education.

The Colleges of Further Education have never been in much doubt about their central role as providers of vocational education. [18] Paradoxically however, the further education sector has **ex**panded as employment opportunities have **de**creased. Throughout this expansion, vocational further education may be seen to have been concerned with the set of theories that are supposed to guide vocational practice whether their client group was predominantly unemployed or employed. [19] Yet it might be reasonably maintained that, even in the hey-day of low unemployment, the instruction given in Colleges of Further Education was largely divorced from the realities of industrial life. For example Gleeson and Mardle write

> For the apprentice-student, the shop floor represents the real basis of his material existence. College represents an escape route, a ladder to potential promotion and higher wages. It is also seen to be a 'perk', a day off from industrial reality. [20]

Research on the role and concept of Further Education is not extensive, but the plethora of curriculum initiatives with which further education has had to grapple over the past thirty years or so [21] might be taken to support the contention of Gleeson and Mardle that the sort of instruction which young workers get in their colleges does not match industrial reality, - and merely serves as a sort of hurdle which workers must overcome in order to gain promotion.

Oakeshott's work might be used to explain the lack of relevance of the instruction offered in institutions of further education. Oakeshott points out that technical knowledge - which he defines as knowledge of technique that can be formulated in rules - gets its moment of application in practical

knowledge - which he defines as traditional knowledge that exists only in use. For example, to become a joiner involves much more than learning a series of techniques in abstraction from their actual applications in the sort of work that joiners do. Hence Oakeshott mourns the advance of the idea that technical knowledge could be taught in abstraction from the community of practitioners who sustain the practical discourse with which an apprentice was supposed to become familiar. As he puts it

> Apprenticeship, the pupil working alongside the master who in teaching a technique also imparts the sort of knowledge that cannot be taught has not yet disappeared; but it is obsolescent, and its place is being taken by technical schools. [22]

Consequently, for Oakeshott, the move supposedly to maximise efficiency of learning by teaching technical knowledge in colleges in abstraction from and as a preparation for work, could never replace the sort of learning that comes with working alongside someone with the aim of being inducted into a practice. For Oakeshott direct experience is everything in this kind of learning.

As unemployment began to rise, the dominance of empiricist meta-theory that lay behind some of the attitudes and values of those who designed the further education curriculum might be seen to be responsible for the lack of debate about whether people **could** be prepared for particular types of work. The assumption continued that Colleges of Further Education should attend to the development of vocational **preparation** curricula. For example, it is argued on behalf of the Manpower Services Commission [23] that unemployment may be partly attributable to a mismatch between the competences that the unemployed **presently** have and the competences that the unemployed **would need** to have in order to do those jobs that are available. Hence the M.S.C. encourages the Colleges of Further Education to provide short vocational preparation "update" [24] courses in order to satisfy the supply side of the

unemployment equation. The difficulty for the Colleges comes when deciding what the content of such courses should be.

The Colleges of Further Education may be seen to have been founded on the empiricist idea that theory guides rational practice but as they became sensitive to the possibility that such theory did not appear to be readily available, the emphasis shifted and the key idea now seems to have become **practical knowledge guiding practice** through the notion of "transferable skills". [25] Now part of the reasoning behind this shift may well have been due to the belief that people who did not appear to be good at writing or 'academic' study often seemed good at doing **practical** things. Some curriculum designers may not have taken into account that this might be a case of wants (in the sense that learners are often prompted by the desire for some success) replacing needs (and these may have been shown up by failure to 'cotton on' at the first attempt). These designers began to downgrade technical knowledge and proclaimed technical and vocational skills and competences to be the new foundations for rational practice.

The paradox is that empiricist foundationalist epistemology provides the **rationale** for this move by suggesting that all investigation should begin anew and that knowledge is only obtained when the mind is continually being cleared of 'prejudice' [26] - to the extent that subject knowledge is said to become outdated so quickly that the learning of **content** does not matter so much as the learning of **processes.** At that point curricular experts of the empiricist persuasion started looking at what they claimed to be the basic processes of learning. It was argued that since subject knowledge becomes outdated so quickly, it is preferable to teach the process whereby knowledge is obtained. Unfortunately these experts fail to see that they are involved in a regress here. **Logically** the regress can only be avoided by denying the

empiricist meta-theory that lies behind the experts' attitudes and values. In other words this regress is only generated by an empiricist epistemology that has no place for the notions of teaching and learning through conversation.

However **as a matter of fact** these experts attempt to halt this regress through the notion of a learning process. For example if it is agreed that there is no value in someone's concern to learn to **know** that p, because 'facts' can be obtained from a computerised data-base, then it will seem to make sense to teach people to use a computerised data-base; to use a computerised data-base can be learnt by consulting a manual, so it makes more sense to know how to get hold of and to interpret a manual; this in turn leads to - and so on. The problem that faces the expert is to decide the exact point at which to break in to the regress. A variety of suggestions have been tried but the current emphasis is on the idea of an "occupational training family" (OTF) of various skills and competences.

Let us unravel these terms as they apply to the Youth Training Scheme (YTS). The designers of this scheme claim that it is possible to describe 103 "skills" that are generic and transferable and which in various combinations can be mastered in order to prepare people, not just for one job, but for a range of jobs. [27] There is no room here to examine what might be meant by "life-skills", "social skills", "survival skills" and "coping skills" or to elucidate the differences between them. [28] Suffice to say that the designers of such curricular recommendations feel able to group these and other skills into eleven occupational training families (OTF) of skills and competences that are supposed to prepare people for jobs within those families [29].

However the designers of YTS schemes go further than this in proposing that there should be "transfer learning objectives" (TLO) [30] set for YTS trainees,

the achievement of which is supposed to enable them to find work in another OTF should that prove necessary. Hence while trainees are supposed to be mastering those skills and competences appropriate to a particular OTF, they are also supposed to be achieving some TLO's in order to be flexible enough to meet future demands of the labour market. However essentially the function of the TLO seems to involve closing up a division that was only opened by the eleven-fold classification of occupations into OTF's.

For example, the occupations of cobbler, electrician, garage mechanic and window cleaner are grouped within OTF4 (Installation, Maintenance and Repair occupations). Now it is difficult to see what common features there are between the skills and competences involved in doing the work of a cobbler and a window-cleaner over and above those that might relate to a cobbler and a vending machine operator (to take an example from OTF8). It is difficult to support the idea that skills, competences, and even knowledge float free of their moment of application in the concrete tasks and in the particular vocational contexts in which cobblers, vending machine operatives and others operate. [31]

It is not surprising that those concerned with the design and policy of the YTS should leave the matter of the content of YTS programmes to the work of individual sponsors and training agencies, aided by publications from bodies such as the F.E.U. [32] that suggest how the notions of context free competences might be achieved. The problem with the implementation of these suggestions, as Jonathan [33] notes, is that the trainee might end up stocking supermarket shelves while the trainer ticks off the competences supposedly "overcome" on a checklist - competences such as "plan the order of activities", "decide which category something belongs in". These competences might be worth acquiring if they represented something new and valuable to

the trainee; however, when applied to stocking supermarket shelves, it is likely that the trainee will have achieved as much in the way of exhibiting mastery of such examples of those competences in the course of travelling to the supermarket in the morning. Of course stocking supermarket shelves is an extremely useful activity. What is dangerous is the elevation of such an activity to the status of something that is regarded as having the power somehow to prepare the trainee for a range of occupations, should supermarket jobs not materialise, and moreover that pretends that such an activity is necessarily educational in character.

Perhaps the move to OTF's and competences is as far as the empiricist 'theory guiding practice' idea will get; perhaps the thrust into vocationalism may be seen to result from the fragmentation of practical discourse into elements that seemed able to provide a political rationale for learning but did little to offer a different kind of educational value for the lives of those who were deemed to have become competent in OTF's and TLO's. It may well be the case that a short preparation for specific vocations within colleges of Further Education suits both employers and trainees. However if the above argument is correct, this cannot just be assumed nor especially can it be assumed that a **general** vocational preparation is either possible or desirable.

The Management of Educational Institutions

It has recently been suggested in the Report into the Pay and Conditions of Service of School Teachers in Scotland [34] that the lack of good management in educational institutions is responsible for many of the deficiencies in the state education system. In that document it is suggested that education is something that can be "managed", in the sense that the overall aims of education can be determined by appeals to 'market demands' and that these

aims can broken down into objectives that specify target outputs in relation to inputs and for which "managers" can be responsible.

I have argued that many objectivists of the empiricist persuasion ultimately appeal to the market in order to determine what educational institutions should aspire to achieve. However the market - and especially that for education - does not give its verdict in a way that makes it obvious what individual practitioners should do in order to contribute to the satisfaction of 'market demands'. Instead there is a need to interpret the market and to subdivide that interpretation into objectives that practitioners should aspire to achieve. These objectives may then be operationalised and, through a chain or "line" structure, the market is supposed to be satisfied by various line managers achieving their targets predicated upon those objectives and their operationalisations.

However the success of line management procedures - quite apart from the logical question of their appropriateness as models for education - depends upon effective motivation. There appear to be three motivational methods available and used. First there is **extrinsic motivation** such as is provided by some combination of the 'carrot and stick' method, second there is **intrinsic motivation** that depends upon the coincidence of target objectives with those things that the manager or workforce value for their own sake, rather than for the sake of some perceived external benefit. Third there is an ultimate appeal to the idea that the **common good** can be satisfied if individual desires are suspended in favour of externally set targets which are determined ultimately by an appeal to the market.

There is no room here to debate at length whether the 'common good' **can** be satisfied in this way. I have already indicated some of the logical inadequacies

with the thesis that educational aims can be determined exclusively by an appeal to what consumers want. It is worth, however, supplementing my earlier argument here by pointing out that it is by no means clear **who** the consumers of education are. Students, parents, industrialists and others all may claim to use the education service but may make differing demands upon it. It is also not clear that an untrammelled appeal to what might be called "consumerism" in education is compatible with the orderly administration of the education system. Nor is it clear that such an appeal can avoid giving rise to what would widely be regarded as an unacceptable difference between the quality of the educational provision demanded by one set of articulate and vocal consumers and the quality of the educational provision demanded by or perhaps **provided for** their less articulate counterparts. On the other hand it has to be recognised that the present system whereby teachers and individual local education authorities decide much of what goes on in those parts of the education system over which they exercise some control, is no longer acceptable to many people.

We have here an opposition between two views that might be called "consumerism" and "professionalism" with apparently no way to settle matters other than to appeal to whatever norms are politically acceptable. For the moment that means "consumerism", as is shown by the present Government's endorsement of the Report mentioned above. The industrial action that followed publication of that Report, however, may be taken as an indication that many teachers do not believe that the 'common good' will be satisfied by instituting a consumer-related view of education administered by a system of "line managers". Whether teachers are correct in this belief is irrelevant to my argument. It is relevant, however, that only intrinsic and extrinsic motivational methods appear to be available to encourage teachers to accept the

strengthening of line management in schools so that the aims of education, as set by the "consumers", might be realised.

In the case of teaching, potentially at any rate, intrinsic motivation seems high as a logical justification. However recently, as for example in the Report mentioned above, there has been a move to increase the element of extrinsic motivation for teachers, [35] perhaps as a compensation for the loss of intrinsic motivation that is often quoted as having occurred. [36] It can be argued, however, that recent moves towards instituting a line-management system or structure of procedures in educational institutions emanate not only as responses to the demand for "accountability" to "consumers" but also from an attempt to increase the number of means of motivating teachers extrinsically. I shall argue that such a notion of a "management structure" is manipulative because the idea of objectivity assumed within the structure is bogus. The imposition of a line-management structure not only gives rise to the dubious proposition that teachers can be rewarded according to the extent to which they achieve target objectives but also to the fiction that there is such a thing as managerial expertise - either generally or in education. In short I shall argue that the idea of line-management is inappropriate in an educational context.

For extrinsic motivation to be effective in the case of teachers, at least two conditions must be met. First there must be some way of fairly rewarding teachers for their performance; this seems to mean that performance must be measured in terms of 'output' over 'input' for that part of the educational system for which the teacher is responsible. Second the individual teacher's effort needs to be isolated from other influences. There are good reasons to suppose that neither condition can be met.

In the first case students are remarkably variable, such that we do not have any reliable means of measuring their capabilities. External examinations have often been regarded as the most appropriate or even the best psychometric device for such purposes, but they are unreliable and have notoriously low predictive validity. In the second case it is doubtful whether an individual teacher's effort can be isolated from all other factors. Not only do some decisions have to be taken collectively within a school - things like room changes and disciplinary matters - but also some decisions that radically affect a teacher's performance depend upon the decisions of those who are paid to manage him; an example would refer to things like timetabling, provision of resources, class sizes and so on. Moreover the total educational experience is not isolable from other influences on people's lives, - television, magazines and so on. In short a hard empiricist's conditions for objective measurement of teacher performance cannot be met.

Just as an objectivist might suggest that sense-data can function as foundations for the edifice of theory construction about efficiency of means, so an objectivist might also suggest that the manager's interpretation of the market provides the permanent foundations for evaluative theory. In order to justify that interpretation, managers have to make it look as if their judgements were based on some impersonal criterion also. Yet such a criterion must be a fiction, for apart from the market, **there is no** other appeal to objectivity. For the objectivist of this persuasion, judgemental criteria come from the market-place or not at all.

This is the import of one of MacIntyre's arguments in After virtue [37] According to MacIntyre, means-ends rationality necessarily embodies the idea of manipulative social relations in which moral argument consists of veiled expressions of preference. This is termed "emotivism" by MacIntyre and is said

to lead to "the obliteration of any genuine distinction between manipulative and non-manipulative social relations." [38]

The only way that managers might avoid this conclusion is to base their decisions on those observations that can be intersubjectively validated. However this move shifts the emphasis over to those things that are indirectly concerned with student learning, for example curriculum development and administration. The danger is that these observable parts of a teacher's responsibility become the sole measure of the extent to which teachers should be rewarded. This is particularly the case when schools have to face a steady barrage of curriculum initiatives that need to be interpreted, resources that need to be prepared and a plethora of administrative tasks that need to be carried out, in order to demonstrate that such initiatives are being implemented according to some other set of management objectives externally imposed upon them.

The pressure on managers is to reward those who most contribute to such public observable identifiable outcomes at the expense of those who only concentrate on their own teaching. However the latter group might not merely feel discontent because of a downgrading of what they perceive to be the most important part of their job but their discontent might be increased when they realise that their expertise is not such a significant factor when it comes to the way in which managers apportion the rewards accruing to the institution by means of promotions and so on.

However if classroom teaching commands such a low status that the only hope for a career teacher of gaining rewards is to be promoted out of the classroom and out of the way of implementing curricular developments that seem to involve attempts to prepare people for a future that none of us can

predict with any great accuracy, it is paradoxical that the most likely motivation for teachers seriously working on such developments is the possibility of promotion as a reward for involvement in them.

It should be noted that this argument against the idea of a "line management" structure in educational institutions does not carry with it the implication that a structure of promoted posts is inappropriate in an educational context, merely that such a structure cannot be straight-forwardly assumed to be appropriate for education on the basis of its alleged or supposed applicability in other contexts in which more sense can be made of the idea of intersubjectively verifiable target outputs. Instead some other justification is required.

However if arguments articulated by Rizvi [39] are correct, then the introduction of a structure of promoted posts may necessarily negate any attempt to achieve non-coercive decision-making within educational institutions. He argues that the contemporary tools which we use to analyse educational administration are invariably informed by the assumptions of **bureaucratic rationality**

> and that unless we recognise this form of rationality to be fundamentally mistaken, we will continue to be thwarted in our efforts to achieve genuine democracy in educational governance. [40]

Rizvi notes that bureaucratic rationality eschews considerations of ends **within** educational institutions and leads to human relationships that are essentially manipulative in that people are treated as means to the ends of **others.** Bureaucratic rationality leads to the idea that hierarchical authority is indispensable to educational organisations and to the idea that, in merely undertaking our administrative tasks, we are not morally implicated. Rizvi argues against these ideas. He suggests that we contest and alter our values

in the same way as we falsify and revise our scientific theories, [41] a claim incidentally which Evers makes in another context (and which leads Evers to different conclusions) [42]. Rizvi concludes that

> forms of social organisation dominated by the ideas of hierarchy, absolute division of labour and administrative expertise amount to nothing more that an ideology which prevents the realisation of human potential for a caring, collective and democratic life. [43]

However in chapter 6, I argue that it may be possible to institute a structure of promoted posts within educational institutions without entailing some of the negative conclusions that Rizvi advances.

———oOo———

NOTES AND REFERENCES

1 Oakeshott M. Rationalism in Politics 1962, p 1.
2 Gellner E. Spectacles and Predicaments 1979, p 39.
3 O'Connor D.J. "Two Concepts of Education" 1982, p 144.
4 Ibid., p 139.
5 cf. Holt M. "Vocationalism: the new threat to universal education" 1983.
6 Jonathan R. "The manpower service model of education" 1983.
7 Ibid., p 4.
8 Gellner E. 1979, p 280.
9 Ibid., p 281.
10 Ibid., p 282.
11 Ibid., p 284.
12 For example, the Open University, the Open Tech, some course submissions to the Council for National Academic Awards, Business and Technician Education Council (BTEC) and Scottish Vocational Education Council (SCOTVEC) curricula.
13 For a series of examples, see Vincent B. and Vincent T. Information Technology and Further Education 1985.
14 White D.J. Decision Theory 1969, p 12.
15 Hahn F. Hollis M. eds. Philosophy and Economic Theory 1979, p 1.
16 Recently economists under the influence of G.L.S. Shackle, (see especially his Imagination and the Nature of Choice 1979, Edinburgh University Press) have begun to incorporate the effect of imagination within economic theory. Rather than attempting to quantify imagination and thus to work out a sophisticated algorithm for economic success, some economists have adopted the idea that economic success cannot be quantified. For example, Earl P.E. The Corporate Imagination 1984, Wheatsheaf, Brighton, presents an economic theory in the form of a series of case studies of successful economic practice and does not attempt to set out an algorithm linking economic theory and practice. For "a revisionist's view of the economics of education" see Mace J. in Higher Education Review Summer 1984, pp 39-56.
17 The Secretaries of State for Employment, Education and Science, Scotland and Wales, Training For Jobs H.M.S.O., 1984.
18 Gleeson D. Mardle G. Further Education or Training? 1980, see especially chapter 1 and p 116.
19 This move was consolidated in
A New Training Initiative: a consultative document MSC, 1981.
A New Training Initiative: an agenda for action MSC, 1981.
A New Training Initiative: a programme for action Cmnd 8455, Department of Employment, HMSO, 1981. For a discussion of the implications of this initiative for FE, see the "Introduction" to Supporting YTS Further Education Unit (FEU) 1985, pp 1-7. See also Vocational Preparation FEU, 1981, especially p 7 and section II.
20 Gleeson D. Mardle G. 1980, p 124.
21 See Cantor L.M. Roberts I.F. Further Education Today RKP, 1979, ch 1, for a review of such initiatives up to 1979. See Publications FEU, 1986, for a list of FEU titles which cover such initiatives in the 1980's.
22 Oakeshott M. 1962, pp 33-34.
23 FEU 1981, p 8.
24 Objective 3 of the New Training Initiative includes "opening up widespread opportunities for adults, whether employed, unemployed or returning to work, to acquire, increase or update their skills and knowledge during the course of their working lives." The DES "Pickup" initiative may be seen to be related to this objective.
25 Increased emphasis is given to practical activity leading to the acquisition of skills. For example the FEU recommend that "many of the

young people will find the more general core objectives most accessible when approached through specific and practical activities" A Basis for Choice FEU, 2nd edition 1982, p 21. Moreover these "skills" are supposed to be transferable. "A further major component of vocational preparation is the acquisition of basic skills. ... These skills should be broad-based and transferable rather than specific and job-restricted," FEU, 1981, p 13.

26 for example, as advocated by Bacon F. in the Novum Organum (many editions) and by Descartes R. in A Discourse on Method (many editions).

27 Hayes C. et al. for the Institute of Manpower Studies Foundation Training Issues. A Report for the MSC 1982. For a further discussion of this issue and for a useful list of selected references, see Johnston R. Occupational Training Families: their implications for FE FEU 1984.

28 Ibid., pp 34-44.

29 Ibid., pp 42-43.

30 Ibid., pp 44-45.

31 For a more extensive critique of this issue, see Jonathan R.M. "Core Skills in the Youth Training Scheme: an Educational Analysis" 1987.

32 For a list of FEU publications see
Publications Despatch Centre
Department of Education and Science
Honeypot Lane
Canons Park
STANMORE
HA7 1AZ

33 Jonathan R.M. 1987.

34 Report into the Pay and Conditions of Service of School Teachers in Scotland. chairman Sir Peter Main, presented to Parliament by the Secretary of State for Scotland, Oct. 1986, Cmnd. 9893. HMSO, Edinburgh, p 9.

35 Ibid., p 106.

36 Ibid., p 35.

37 MacIntyre A. After Virtue 1981.

38 Ibid., p 23.

39 Rizvi F. "Bureaucratic Rationality and the Possibility of Democratic Governance in Education" The Australian Administrator, Deakin University, 7 no 1, 1986, pp 1-4.

40 Ibid., p 1.

41 Ibid., p 3.

42 See the exchange between Evers C.W. "Hodgkinson on Ethics and the Philosophy of Administration" Ed. Admin. Quarterly, 21 no 4, 1985, pp 27-50, and Hodgkinson C. "Beyond Pragmatism and Positivism" in the same journal, 22 no 2, 1986, 5-21. For Hodgkinson, educational administration cannot be a science, whereas for Evers educational administration must be a science. Hodgkinson writes "If leadership does not top the heights and depths of the human spirit transcending pragmatism and positivism, then it dissolves and degenerates into mere management." For Evers' account of "science", see my next chapter.

43 Rizvi F. 1986, p 4. See also the collection edited by Rizvi titled Working Papers in Ethics and Administration 1985, Deakin University School of Education.

———oOo———

CHAPTER 4

POST EMPIRICIST PHILOSOPHY OF SCIENCE

FROM FOUNDATIONALISM TO COHERENCE

The previous three chapters have been concerned with the **present** state of educational theory and practice. I have argued that much current educational theory and practice is underpinned by a reliance upon a foundationalist empiricist epistemology and its attendant research procedures. The attraction of tying educational theory in with a procedure that is commonly assumed to produce our most useful and reliable theory - natural scientific theory - is clear enough. However, as I hope to show in this chapter, empiricist accounts of theory production do not provide an adequate account of how natural scientists arrive at what is widely regarded as the most prestigious type of theory, let alone whether, and if so how, educational theorists might emulate that procedure.

I rehearse some theories of Popper, Lakatos, Feyerabend and Quine in order to argue that the utility and reliability of natural scientific theories cannot be underpinned by a reliance upon a foundationalist empiricist epistemology and its attendant research procedure. Instead of the empiricist idea that reliable theory is based on the secure foundations of supposedly theory-neutral observation statements, I argue that observation statements themselves are theoretically partisan and hence that theories are compared **against each other.** The philosophers mentioned above offer different solutions to the common problem of identifying those theories that form the standards against which others should be compared. I present their solutions in the form of a progressive argument that moves away from empiricist inductivism towards holistic coherence.

I conclude that the holistic idea of maximising the coherence of a 'network' of theory is of most interest to my developing account of educational theory. I offer a critique both of Quine's development of this idea and of the use that the Australian scholars Walker and Evers make of Quine's work in the development of a philosophy of education that they call "materialist pragmatism". While I argue against some of the conclusions that Walker and Evers draw, I suggest that their work opens up a fruitful line of enquiry into the nature and purpose of educational theory.

The Quinean idea of a network of theory which includes philosophical, scientific and ethical theories offers the possibility of moving away from the view that educational theorists might emulate the so-called "empiricist" research procedure on the grounds that that procedure is responsible for the explanatory and predictive success commonly attributed to natural science - as if educational matters were static and simply waiting to be investigated, administered and evaluated in abstraction from the interests of educational practitioners. Instead the possibility opens up of a range of educational theories in competition against one another, each offering different prescriptions for action in the dynamic contexts in which educational matters are practised.

Empiricist Research

The central thesis behind empiricist research is that the world can be investigated by looking for regularities in its structure. These regularities may then be generalised into statements about what we know that are supposed to correspond with the way the world actually is. As a result we are supposed to be able to act and move in the world with increased efficacy.

However there are at least two major difficulties with this thesis. First, there is a difficulty with the notion that there can be a 'linking' of statements to the world, for we can never either in fact or in principle get beyond words to the world. Whatever we do we seem always to end up with a matching of statements to statements, since we have no access to the way the world actually is other than **via** the statements we use to **describe** the way that we actually perceive the world to be.

Second, the move postulated in empiricist inductivism from the particular to the general is logically inadequate as a guarantee of truth, because of the so called problem of induction. No matter how many times something is seen to take place, that is no guarantee that that occurrence will always take place. Furthermore since there are many occasions when the principle of induction has been deficient then, by itself, the principle of induction will always be deficient. Finally, in inductivism there is no case of induction where the principle of induction itself is not presupposed: it rests therefore on a blatant petitio principii.

In The Logic of Scientific Discovery [1] Popper claims he can overcome the problem of induction by pointing out that while no amount of careful observation of events can ever guarantee the truth of a statement that takes the form "all X's are Y", **one** observation of an X that is not a Y enables us to assert with logical security that "**not** all X's are Y".

This deceptively simple point reorients the scientific enterprise for Popper. Instead of scientists looking for **confirming** instances of a general statement or theory, Popper advocates that scientists start by making bold conjectures about an assumed generality and then set about trying to find a falsifying instance of that generality, so that they can be certain that they were wrong.

Successive bold conjectures are made with the knowledge that some theories are false and so by a sort of negative implication conjectures asymptotically approach the truth though they never reach it.

Popper [2] likens truth to the summit of a mountain in that a climber or a truth-seeker may not know how near he is to the summit or indeed if he has even got there, yet his climbing implies that he recognises that there is a summit. Now while the climber may not know whether he has reached the summit he can certainly check whether he has not yet reached it by attempts at falsification. Truth thus becomes in Popper's account of science a regulative principle towards which scientific progress evolves asymptotically. However it is not just any truth to which Popper aspires; it is the search for "interesting" truth that is important. For example

> We are not content with 'twice two equals four', even though it is true ... what we are looking for are **answers to our problems.** [3] (original emphasis)

So for Popper content is also important; it is for this reason he introduces the notion of "verisimilitude" [4] as the difference between the truth content of a theory and its falsity content. In other words maximum "verisimilitude" would only be obtained by a theory that was not only true but **comprehensively** true.

While pragmatic considerations may **guide** the kind of conjectures that scientists make, for Popper the truth of those conjectures is unrelated to such "subjective" considerations. Instead Popper subscribes to Tarski's semantic theory of truth. [5] Tarski [6] separates an object language ("snow is white") from a semantical metalanguage. In the metalanguage (it is true that 'snow is white') we can speak about an object language but not about the facts to which it refers. This simple device enables Popper to keep the idea of correspondence, for if, as he [7] suggests, we take truth to be synonymous with "correspondence to the facts" then we can preserve truth by recognising that

we must use a metalanguage within which we not only make a statement but also speak about the facts to which a statement refers. Tarski's theory also enables us to overcome the paradox of the liar, in that we are able to separate object and metalanguage.

However Tarski's theory makes truth a property of sentences, whereas it seems to be statements not sentences that are true or false. This latter is essentially Strawson's criticism of 'redundancy' theories of truth, [8] for what appears to be missing from Tarski's theory is any reference to a context of use. We may confirm or appraise for a whole variety of reasons; yet, Strawson argues, we want to go beyond this in a theory of truth, not just because we confirm and appraise statements for other reasons than their truth but also because we look to a **theory** of truth to explain how a statement must conform to standards of objectivity beyond itself and beyond the person who made the statement. [9]

Moreover the notion of 'verisimilitude' may be criticised on the grounds that it too is 'theory-laden'. That is to say 'verisimilitude' seems to involve the recognition of a common framework within which to view not only matters of increased content but also to recognise falsifications when they occur. In terms of the mountain-climber analogy, we have to be sure that we are climbing the same mountain or at least mountains in the same group and that is something of which we cannot be sure since our framework only allows us to view our own mountain face and one mountain face may look much like another.

Popper accepts that

> at any moment we are prisoners caught in the framework of our theories ... but we are prisoners in a Pickwickian sense. If we try we can break out of our frameworks at any time. [10]

Popper goes on to assert that, while the difficulty of discussion between people brought up in different frameworks is to be admitted, that difficulty does not make communication an impossibility; he does not think that much of scientific interest can be discovered by worrying what might be meant by "in a Pickwickian sense". It seems that for Popper, as long as we take care to state our theses as clearly as possible, we do not have to worry too much about language. [11] The idea that meaning might be relative to a framework is for Popper a bulwark of relativism.

The problem with this view is that many people do worry about language and for good reason. They see that the 'theory-dependence of observation statements' is really a problem about which part of a system of theories is to be modified and on what grounds, the solution to which is central to our coming to be able to give an account of scientific progress. The central difficulty with Popper's account of the logic of scientific discovery is that we have no access to a neutral observation language with which to test theory. Instead observation is itself dependent upon the adoption of many auxiliary theories that serve to determine what might count as a valid observation. Popper is aware of this difficulty and attempts to solve it by suggesting that individual scientists or groups of scientists just accept certain observation statements as unproblematic "background knowledge", [12] though Popper adds that this background knowledge can itself be challenged. [13]

However this proposed solution does not really overcome the difficulty. Apart from the fact that an attempt to outline the logic of scientific discovery is somewhat weakened by a direct appeal to subjectivity of judgement, a new and highly innovative theory would never get started if it had to satisfy the same observational procedures that supported its predecessor. The idea that scientists would reject a well-established group of theories on the basis of one

contradiction or what would be assumed to be one falsifying counter-instance is simply unbelievable, as Kuhn [14] has shown, not only because scientists do not happen to behave in that way but also because some of the best examples of scientific theory would on that basis have been rejected in their infancy. In effect if Popper's account of falsification were accepted then scientific progress would seem to be impossible, - experimental work would never 'get off the ground', so to speak.

Imre Lakatos attempted to account for a different preference in scientific theory by moving the emphasis from simple falsification of single theories towards the idea of the evolving changes and progression of groups of theories. Lakatos accepted that theories are compared with one another, not with an objective reality, but he attempted to account for the theory-dependence of observation statements by suggesting that scientists take a methodological decision to treat some theories as unproblematic while a new theory is under test.

This looks remarkably similar to Popper's proposed solution to the problem of the theory-dependence of observation statements. However instead of treating theories in isolation Lakatos suggested that we look at a "research programme" [15] which consists, he says of a series of theories that share the same "hard core" of supposedly unproblematic content (axioms, basic postulates, central concepts, etc.), but which differ in their contributions to a "protective belt" of content (auxiliary hypotheses etc.) which needs to be altered progressively. As long as each modification of the protective belt enables us to predict new facts, some of which are corroborated by experiment, then the "research programme" is considered to be "progressing" and is supported by the scientific community. In this way Lakatos claims he has elucidated the proper method for accounting for theory formation and progression and he suggests

that this method is suitable for other types of theory as well as natural scientific theory. [16] In an educational context this suggestion has been taken up by Harris [17] and Matthews [18] who have attempted to use Lakatos's account of theoretic progression and change to prove the superiority of what they call a "historical materialist research programme" in education. The extent to which these attempts are successful is contentious. [19]

However, as Feyerabend [20] has pointed out, Lakatos's methodology of scientific research programmes is deficient in at least two major respects. First, just as theories can only be judged relative to other theories, so research programmes can only be judged relative to other research programmes. Unlike theory-comparison, time is needed in order to compare and evaluate research programmes. Lakatos admits that research programmes may degenerate for a while and then progress, so that time is needed before a research programme can be pronounced "dead" or progressing. Indeed all research programmes would be "still-born" unless time was allowed for their progression. The question arises as to how much time should be allowed? It seems it is only with the benefit of hindsight that Lakatos's methodology can be regarded as an adequate account for evaluating research programmes, in that at any instant it is not obvious whether a research programme is about to progress or continue to degenerate.

Lakatos's [21] immediate solution of withholding money and publication facilities as long as research programmes appear to be degenerating is hardly helpful, since money and publication facilities may be essential in order to determine whether or not a research programme is degenerating. Again one may question how long a research programme is to be "nursed".

For Feyerabend the only method that allows the sort of progression in science which he believes Lakatos wants is the principle of "anything goes". [22] Feyerabend insists that Lakatos outlines "the most advanced and sophisticated methodology in existence today" [23] but since even this methodology is held by Feyerabend to be inadequate, for the reasons advanced above, then he advocates the proliferation of theories so that there may be more opportunities for theory comparison. For Feyerabend theoretical pluralism aids theoretical progression and it matters little whether mystics, magicians, theologians **or** scientists supply the theories that command our attention. Feyerabend argues that science is just

> one of the many forms of thought that have been developed by man, and not necessarily the best. It is conspicuous, noisy, and impudent, but it is inherently superior only for those who have already decided in favour of a certain ideology, or who have accepted it without having ever examined its advantages and its limits. [24]

The ideology to which Feyerabend refers includes the idea of universal reason based on science but this too is suspect:

> Given science, reason cannot be universal and unreason cannot be excluded. This feature of science calls for an anarchistic epistemology. The realisation that science is not sacrosanct, and that the debate between science and myth has ceased without having been won by either side, further strengthens the case for anarchism. [25]

We might ask what Feyerabend might mean when he refers to a debate being won? If "anything goes", and we have no reason to accept or reject anything finally other than our "taste", [26] Feyerabend is left with an extreme form of relativism in which all theories, research programmes and ideologies (conceived as sorts of super-research programmes) are incommensurable. The difficulty for such extreme relativism is not simply that we seem to have nothing at our disposal with which to appraise **any** account of anything (including the claimed superiority of Feyerabend's methodology over Lakatos's methodology of scientific research programmes) but also that all accounts become

incomprehensible unless there is at least **some** commensurability between them. [27] For example, we would not understand Feyerabend when he describes the Galileo - Bellarmine confrontation unless there were some commensurability between the ways in which Galileo, Bellarmine, Feyerabend and ourselves use the term "faith". [28] If Feyerabend is correct in arguing that previous scientific progress has been achieved precisely because the accounts of Galileo and Bellarmine were incommensurable, then we should not be able to understand Feyerabend's thesis. As it is however, Feyerabend's thesis is comprehensible and must therefore be mistaken.

The idea of Coherence within a Network of Theory

We have seen that the central problem that informs the work of these post-empiricist philosophers of science concerns the theory-dependence of observation statements and the lack of an external 'touchstone' against which theories might be 'objectively' compared. We have seen also that the solution that has been described as "the most advanced and sophisticated in existence today" fails to account for the way in which scientific theories are compared against each other and leads to the opposite suggestion that all theories are as valid as each other. The above discussion has led us back to an impossible choice between objectivism and relativism. I turn now to consider the work of W.V.O. Quine for I believe that his work opens up a new line of enquiry into the nature of scientific theory which may enable us to see how to avoid confronting this impossible choice.

Rather than attempting to solve the problem of the theory dependence of observation statements, Quine attempts to **dissolve** this problem by incorporating both theories and observation statements within the same epistemological network. Using a metaphor that closely resembles Wittgenstein's metaphor of "fibres criss crossing" [29], Quine suggests that knowledge forms a

"seamless web" [30] - a network of belief, which forms a continuous whole, with theory which is less amenable to revision by observation at the centre and observation statements at the outside. The web continuously develops as new pieces of evidence are incorporated into it. Claim and counter-claim are part of the total body of theory and all theory is theory **extension.**

According to this account, children are born with some innate dispositions, namely guidance by sensory stimuli, a taste for simplicity and a taste for conservation [31] that guide their learning of language. Language learning is what Evers has called the "entering wedge" [32] into the process of scientific theory formation and subsequent theory extension takes place by the accretion of the data occurring from sensory stimuli. For Quine, "we are working up our science from infancy onward." [33] However there is an infinite number of ways that these data can be incorporated within a developing network of theory - sense data may cause perturbations **across** the network. (One might imagine a billiard ball of observation striking a 'pack' of theory which is initially complicated before it rearranges itself into the simplest formation that most resembles the original configuration.)

Science is successful at modifying and extending our theory because it groups stimuli according to innately chosen similarities, which makes for successful inductions and fulfilled expectations. As Quine remarks

> creatures inveterately wrong in their inductions have a pathetic but praiseworthy tendency to die before reproducing their kind. [34]

The importance of inductions for Quine is that they function as the entering point for the learning of language - and - theory and the anchor for subsequent development of language - and - theory. Learning thus takes place by the operation of a series of stimuli which are reinforced or extinguished according to whether they fulfil our expectations. According to this account

ethical theories are equivalent to scientific theories. The 'ethical' problem of **what** to learn is considered to be logically equivalent to the 'scientific' problem of **how** to learn. [35] In both cases the guiding principle is the maximisation of coherence of the developing network of theory.

However we may question how theories that vary both in their semantics and in their ontological commitments may be situated within the same epistemological network. Quine's answer to this question comes in three parts: first he argues against the notion of truth by virtue of meaning which he calls "analyticity". [36] Second he argues that the coherence of our network of theories is maximised when our theories are translated into the canonical notation of first order predicate calculus. [37] Third he argues in favour of something he calls the "scientific method". [38] I discuss each part in turn.

Quine essays the notion that analyticity is logically equivalent to synonymy by considering the role of a lexicographer which he concludes to be

> to inculcate understanding of expressions, that is, to teach us how to use them. [39]

He also tries out the idea that analyticity is connected with explication and concludes that explication is just the selection of certain contexts as being particularly perspicuous. [40]

Quine's most concerted attack on the notion of analyticity comes in his "Indeterminacy of Radical Translation Thesis". [41] which involves him in the view that no reliable translations may exist between different languages. Quine argues that the reference of a general term in a remote language is objectively inscrutable because it depends on how one decides to translate a

> cluster of interrelated grammatical particles and constructions, plural endings, pronouns, numerals, the 'is' of identity and the adaptations 'since' and 'other'. [42]

To take an example, we have no reason for deciding that the utterance "gavagai" in an alien native language refers to rabbits, undetached rabbit parts or rabbit stages or whatever. The only way Quine suggests we can determine which use is involved is by paying attention to the use of the word in sentences. This seems uncontroversial but Quine extends referential inscrutability into our own home language.

> We can systematically reconstrue our neighbour's apparent references to rabbits as really references to rabbit stages and his apparent references to formulas as really references to Gödel numbers and vice versa. We can reconcile all this with our neighbour's verbal behaviour by cunningly readjusting our translations of his various connecting predicates so as to compensate for the switch in ontology. [43]

Quine concludes that we can only question the reference of terms in a language by having recourse to some background language. But any attempt to justify our background language leads us to a regress which we can only stop by just accepting our mother tongue and taking its words at face value. However if ordinary language forms the basis of our translations, then it seems as if we have might have to accept ordinary language as telling us all that we need to know. But Quine's thesis [44] challenges this. As Romanos puts it:

> Our confident and effective utilisation of our most familiar, all - inclusive ordinary language testifies ... to the ultimate meaninglessness of ... conceptual enquiry. [45]

Not only is there no one way the world really **is** but, for Quine, it no longer makes sense to say that there is a way we can really **say** it is. Quine would therefore be unimpressed by G.E. Moore's argument in "Proof of an External World" [46] . For Quine, Moore touches neither the issue of absolute ontology nor absolute semantics.

This argument against analyticity puts an end to the idea that something that we call "meaning" is preserved when we translate between languages. For Quine, a scheme of translation is simply another theory that is tested

according to whether it is the simplest way of reconciling the behaviour of those who speak in a different language with our own. This argument also puts an end to one of the central tenets of APE - that something is gained when the meaning of an educational term is analysed. For Quine such analysis can have no explanatory significance; just because we **happen** to be familiar with a particular way of speaking is no reason to suppose that that way has any epistemic privileges.

For these reasons and others Quine dispenses with the notion of meaning and mentalistic semantics that rely on the notion of intention. Instead Quine suggests that the coherence of our developing conceptual scheme is maximised when the ontological commitments of our theories are made explicit by translating all theories into the canonical notation of first order predicate calculus. Not only is this suggestion designed to show up contradictions within a theory, as happens for example when

> we find philosophers allowing themselves not only abstract terms but pretty unmistakable quantification over abstract objects ... and still blandly disavowing, within the paragraph, that there are such objects, [47];

but also this suggestion is supposed to allow us to translate all theories into the same canonical notation.

Rather than the "seamless web" being made up of theories that rely to varying degrees on intentional semantics and that are presented in a variety of notations, this suggestion allows Quine to have a "seamless web" made up of theories that rely exclusively on extensional semantics and that are presented in the "canonical notation", thus enabling him to give a determinate sense to the idea of maximising coherence through the use of the term "systematic virtue". The literature that surrounds this term is vast and highly technical. [48] However in summary, "systematic virtue" is increased if the theory is simpler and does not involve logical contradiction. These two guiding principles are

supposed to provide Quine with a way out of the regress of reasons inherent in foundationalist accounts of knowledge. It is the overall **coherence** of the theory to which we appeal rather than any purportedly epistemologically secure **foundation.**

It is important to notice that Quine does not suggest that the "canonical notation" underpins our developing network of theory. Rather Quine suggests that we use the "canonical notation" because it is a simplifying device with the same status as any other part of our network:

> the quest of a simplest, clearest overall pattern of canonical notation is not to be distinguished from a quest of ultimate categories, a limning of the most general traits of reality. Nor let it be retorted that such constructions are conventional affairs not dictated by reality; for may not the same be said of a physical theory? True, such is the nature of reality that one physical theory will get us around better than another, but similarly for canonical notations. [49]

For Quine, neither the meanings embodied in ordinary language, logical form nor theory-neutral observation statements serve as external touchstones with which to compare our network of theories. Now it looks as if Quine is suggesting that all modifications of our network of theories might be as good as each other. However he attempts to avoid this relativistic conclusion through the notion of "scientific method".

> Have we ... so far lowered our sights as to settle for a relativistic theory of truth ... brooking no higher criticism? Not so. The saving consideration is that we continue to take seriously our own particular aggregate science ... whatever it may be ... until by what is vaguely called scientific method we change ... for the better. [50]

Quine presents us with the striking idea that just as the infant's initial learning of language evolves into the adult's development of a network of theories, so this network also evolves from one generation to the next.

> Our patterns of thought ... have been evolving ... since the dawn of language; and ... we may confidently look forward to more of the same. [51]

In other words Quine simply **assumes** that our science is evolving satisfactorily and relies upon what Gellner calls "a pragmatic cheerfulness" [52] about the "scientific method" guiding both the infant's learning of language and the conceptual inheritance of mankind. Presently for Quine the paradigm of "scientific method" is provided by theoretical physics because theoretical physics is extensional and has been successful at satisfying his simplicity and conservation requirements. [53]

However, as Rorty notes, no-one seriously expects that all true nomological statements can be derived from the laws of physics and so we have good reason to wonder why

> 'believes in ...' and 'translates as ...' owe more to the necessities of practice than 'is the same electron as ...' and 'is the same set as ...'? ... What is it that sets them apart, given that we no longer think of any sort of statement having a privileged epistemological status, but of all statements as working together for the good of the race in that process of gradual holistic adjustment made famous by 'Two Dogmas of Empiricism'? [54]

The answer to this question may well be that Quine is interested in the idea that the world has a logical structure that may be mapped by a system of propositions formulated in the correct notation. For example, the fundamental particles of physics may be equivalent for Quine to the "objects" that Wittgenstein describes in the Tractatus Logico-Philosophicus. [55] Despite his arguments to the contrary, Quine may well want 'logical form' to replace foundationalist empiricism as the supplier of a new 'grounding' for our theories.

Yet if Quine's holism were to lead him to the view that there are many different vocabularies available for coping with or describing "reality" rather than the view that an extensional language sets the pace for all others, then he would be able to find a role for philosophy as a supplier of those vocabularies. As it is philosophy, as we understand it, does not seem to have a

role for Quine. However, aware of the paradox involved when a philosopher denies philosophy a role, Quine suggests that philosophers formulate theories about scientific theories - in other words philosophers make explicit in theory that which is implicit in (scientific) practice by making its theoretical commitments explicit and employing the canonical notation of extensional logic to do so.

Materialist Pragmatism

As a result of their accepting Quinean coherentist epistemology, Walker and Evers believe, the account of educational theorising they advance and which they call Materialist Pragmatism (MP) is superior to APE. For example Evers [56] attempts to translate Hirst's forms of knowledge thesis into canonical notation and then to show that there are **logical** contradictions within Hirst's thesis that contravene the requirement for material implication. However it is hardly surprising that a theory which embraces epistemic holism can find no room for the idea that knowledge is partitioned into discrete sets. Nor is it surprising that a theory which embraces extensional logic should find no room for the notions of intentionality and meaning.

The central tenet of Materialist Pragmatism is an unreserved acceptance of Quinean pragmatism and epistemic holism, leading to the idea that educational theory develops as a response to the practical problems that arise in educational contexts. This idea is fused with a notion of egalitarianism in which there is a deliberate breaking down of professional hierarchies in order to facilitate access to problem-solving. Walker assumes that there is a variety of viewpoints/theories that compete to determine the orientation of educational policies and institutions and that these viewpoints, or theories as he prefers to call them,

> vary considerably in level of sophistication, scope of practice encompassed and applicability of content, as well as in degrees of commensurability or possibility for rational comparison and evaluation. [57]

Despite this variation Walker asserts that each theory will have something in common with other theories. This area of overlap he terms, following Lakatos, "touchstone" [58]. Walker uses this term in order to stress that two theories may only be compared when their proponents can recognise common standards such as common theoretical claims and methodologies and findings produced by the application of such methodologies - "evidence". According to Walker, at present we do not have - but most urgently need - some "touchstone" for educational problems and their solution. In other words we urgently need some agreed methodological criteria for settling what is and what is not to count as overlap between competing criteria and theories. Walker suggests "logic, semantics and epistemology" [59] as starting points for getting the procedure of theory-comparison going. When we have some 'touchstone' we can set about the task of proposing theories along with the task of agreeing the further 'touchstone' that might be used to settle disputes between competing alternative educational theories.

The coherence of an overall conceptual scheme is the guiding principle for such a Quinean programme for philosophy of education. By this canon such a programme is supposed to **cohere** better than APE in the sense that our developing network of theory is simpler and our educational problems are more easily solved if MP is substituted for APE. In the same way as the positing of molecules simplifies the description of material objects, molecules are incorporated into the scheme having the same status as ethical judgements and systems of canonical notation and anything else that helps us to "get us around better". [60] The much-discussed problem of educational theories involving means and ends and the supposed distinction between science and

ethics is dissolved in Quine's semantic web since both are amenable to scientific investigation.

There are however problems with MP which Evers acknowledges. For example your conceptual scheme and mine may not be identical since we have been subject to different stimuli. How are our differences to be reconciled? According to Evers, we firstly maximise the "systematic virtue" of our schemes by being persuaded of the value of putting everything into canonical notation. This may reveal logical inconsistencies. If it does not then we reduce our values into methods and substance amenable to scientific investigation. While Quine is pessimistic that there will always be some residual value-conflict unresolved, Evers suggests that we can always ask

> Does this ultimately valued state of affairs aid in the solution of problems? [61]

Since good science requires that we value problem-solving, we give priority to problem-solving in educational theorising. This apparently can be used to settle the value-conflict but someone may protest for example that our best scientific theory may change what we ordinarily mean by good and bad. This is highly desirable for Evers, because at least our best theory may have "winnowed the chaff of superstition and nonsense." [62] Indeed, for Evers, what we ordinarily mean by good and bad **is** their role in our best theory. Ordinary use is use within a theory. For example, language and theory are equivalent for Evers and so one or the other can drop out of use. Just as intentions are equivalent to physical states, so one or the other can drop out of use unless it serves as a sort of useful shorthand.

There is also the objection that Evers' position may be regarded as relativist. Evers accepts that in the end we just "fight it out" [63]. We cannot claim

> any higher truth than the truth that we are claiming or aspiring to as we continue to tinker from our system of the world within. If ours were one of two rival best theories, it would be our place to insist on the truth of ours and the falsity of the other theory where it conflicts. [64]

This may not seem to be a relativist position. We might remember however that the notion of meaning is empty for Evers and that when a final statement of disagreement is reached there are no means of gaining further insight into the subject of the disagreement, in as much as appeals to science and behavioural evidence have been exhausted.

This seems to be a debilitating criticism of MP, for the notion of meaning at least allows us to account for understanding with disagreement. The idea of 'touchstone' theory mentioned earlier is only helpful if we can recognise and apply 'touchstone' to other parts of our conceptual scheme in order to solve our problems. If we recognise and apply 'touchstone' by even more 'touchstone' then we seem again to be involved in a regress similar to that that takes place in foundationalism. MP may be based on the idea of coherence but crucial to it seems to be the parallel foundation of mutual commitment to finding and consistently holding to touchstone theory while a problem is solved and the sands of overall theory have shifted. It is true that we can only tinker with our world from within but, in order to make progress with that tinkering, we **must** elevate some theory, whether it be the touchstone theory of rationality, logical form or whatever above all others, at least until a problem is solved.

This elevation may appear to be a very modest tilt in the direction of foundationalism since, within MP, the 'foundations' may be replaced in the same way that **any** part of a conceptual scheme may be replaced. However without some idea of what would count as a solution to a problem it is hard to see how commitment to a particular touchstone theory is to be sustained. At what

point are we to abandon one account of 'touchstone' in favour of another? Furthermore how are problems to be recognised, selected and tackled? Within MP, any problem that is extensional is a practical problem but if material constraints are sufficient to decide the order of problem-solving then it seems hard for MP to avoid the conclusion that material constraints function as at least one sort of foundation upon which edifices of conceptual coherence may be built.

I detect a difference in the approaches of Walker and Evers to this issue. For example Walker suggests

> that serious consideration be given to a totally (social) relationist theory of the individual, in which skills, habits, traits and other personal characteristics are stated purely as social relations. [65]

In this Walker seems to be more of a pragmatist than Evers and to avoid the reductionist epistemology of Quine who proposes that

> causal explanations of psychology are to be sought in physiology, of physiology in biology, of biology in chemistry, and of chemistry in physics - in the elementary physical states. [66]

In contrast Evers considers that the notion of intention may in time be identified materialistically as a series of physical causes [67] and so it might if Quine's programme of conceptual revision were to be carried out **prior** to any empirical investigation - thus eliminating the dualist metaphysics inherent in ordinary language by regimenting it into the canonical notation. However as Malcolm notes:

> the admission ... that some revision of language is required in order to establish the identity conjecture as true is an admission that it is not a logical possibility that the conjecture should be established as contingently true or as contingently false. [68]

The point is that the move to a canonical notation is **presupposed** in Evers' consideration and far from this being the kind of neutral simplifying device that Evers, Walker and Quine seem to suppose it to be, in fact their use of it

has already decided in favour of particular sorts of investigation. However there appears to be no more logical reason to adopt the conceptual revision of ordinary language into canonical notation than there is to adopt the conceptual revision within ordinary language that can lead to statements like "tables lay eggs or [that] eggs lay tables" [69]

My criticism of MP has been directed against the Quinean idea of a network of theory that is supposed to develop in an evolutionary way as "problems" are solved by applying something called the "scientific method" that turns out to have reached its best formulation in theoretical physics. However Quine's work opens new lines of enquiry into the nature of educational theory. It may be possible to extend Quine's metaphor of a "seamless web" to the elucidation of the logic of educational theory without imagining that the fibres of the web are all of the same kind, namely strands in a logical calculus. Furthermore such a possibility might allow us to account for the way in which parts of the "web" can function as "assumptions" on which other parts of the "web" are based - as key threads in the overall fabric.

In other words the metaphor of a theoretic 'network' might be accepted whilst MP's claim to have found **the** method of theoretical comparison in an educational context might be abandoned. A remark of Sellars [70] might be paraphrased to point the way forward: educational theorising is rational not because it has a foundation of a fixed methodology or a fixed commitment to the inscrutability of certain types of theoretical predicates but because it is a self-correcting enterprise that can put any claim in jeopardy though not all claims at the same time and not always in the same way. What is needed is an account of the way in which terms from a variety of discourses can come to function as inter-discursive touchstones of rationality.

It might now be helpful to discuss how the conclusions reached in this chapter have a bearing on my developing account of educational theory. We have moved away from foundationalist empiricism on the grounds that natural science is not underpinned by foundationalist empiricist epistemology and that the empiricist account of theory-production does not properly characterise the activity of natural scientists. We have seen also how the 'objectivism' implied in Lakatos's "methodology of scientific research programmes" leads Feyerabend to out and out relativism. Instead we have considered some aspects of Quine's philosophy and the use that Walker and Evers make of it within "materialist pragmatism" on the grounds that this approach overcomes the 'theory-ladenness' problem and presents a synthesis of different types of theory within the same network, thus offering the possibility of a non-foundationalist and non-objectivist account of theory-comparison.

However I argued that there is a tension within Quine's work between the idea that 'logical form' functions as a kind of 'foundation' for the edifice of theoretic coherence and the idea that there are no theory-neutral devices that can serve as foundations for theory-extension within a theoretic network. I went on to argue that this tension is brought into prominence when consideration is given to the particular form of pragmatism adopted by the proponents of Materialist Pragmatism which suggests that our theories develop as as a response to the problems that we face.

As I pointed out, problems are framed according to the theories that are likely to be relevant to their solution. However the adoption of Quine's conservation and simplicity requirements leads to the view that it is impossible to frame a problem that questions the very criteria for what might count as a solution. Yet it can be argued that it is precisely this kind of problem that yields the most fruitful theoretic advances. For example, periods of what Kuhn calls

"revolutionary science" [71] characterise periods of "crisis" within the scientific community in which a number of theoretical frameworks or "paradigms" compete to determine what might count as a problem. [72] To take another example, the Enlightenment is seen by Gellner [73] to embody a radical break with tradition, that leads to a clear distinction between developed and underdeveloped societies - with clear advantages for the former. In contrast Quine seems to place too much emphasis on the idea that continuous scientific evolution can be assumed. His conservation and simplicity requirements seem to be biased in favour of the solution of problems whose form is immediately apparent, for these requirements seem to militate against any theoretical extravagance however useful such extravagance might turn out to be in the long term.

If our educational theories are to be responses to immediate practical problems, then we seem compelled to give up the kind of work in which Walker and Evers are engaged. For it would be hard to convince harassed teachers that "materialist pragmatism" was a response to their problems, however theoretically supportive of the their predicament the work of that approach might be - we should simply never get to the point when the full implications of that work were explored as such exploration would be considered "theoretically extravagant". In other words, unless the simplification criterion adopted by Walker and Evers as part of their Quinean programme for philosophy of education is relaxed in some way, then educational theorising, as we understand it, is impossible.

In the next chapter I intend to substantiate the claim that educational, natural scientific and other types of theory form a network that is neither bound using the "canonical notation" nor bound according to the posits of theoretical physics. Instead I argue in favour of an account of natural science due to T.S.

Kuhn who explains discontinuity in theory extension by invoking the notions of interpretation and shared commitment within the natural scientific community. Rather than the boundaries of natural science being sharply drawn, I argue that the interpretation of scientific terms depends upon a 'family resemblance' between natural scientific and other linguistic practices within a scientific 'form of life'. Such a 'form of life' is more rational than a primitive 'form of life' because the former exhibits a technological control which the latter must recognise. I conclude that there are good reasons to adopt the metaphor of a theoretic network which includes all types of theory and to adopt a Kuhnian account of natural science as a model for theorising about education.

———oOo———

NOTES AND REFERENCES

1 Popper K.R. The Logic of Scientific Discovery 1959.
2 Tarski A. "The Semantic Conception of Truth" 1949.
3 Popper K.R. Conjectures and Refutations 1963, pp 229-230.
4 Ibid., p 219.
5 Popper has a particular interpretation of Tarski that is not shared by other philosophers. For one overview see Haack S. Philosophy of Logics Cambridge University Press, 1978, especially pp 112-122.
6 Tarski A. 1949.
7 Popper K.R. 1963, p 224.
8 Strawson P.F. Meaning and Truth 1970.
9 See Davidson D. "True to the Facts" in Inquiries into Truth and Interpretation 1984, pp 37-54, where he attempts to account for Strawson's criticism and in so doing, attempts to re-establish a correspondence theory of truth.
10 Popper K.R. "Normal Science and its Dangers" in Lakatos I. Musgrave A. eds., Criticism and the Growth of Knowledge 1970, p 56.
11 Popper thinks that essentialist theories of meaning have little explanatory value. See "A Long Digression Concerning Essentialism" in his autobiography Unended Quest 1976, pp 18-31.
12 Popper K.R. 1963, p 238.
13 Ibid..
14 Kuhn T.S. The Structure of Scientific Revolutions 1962, especially ch. 2.
15 Lakatos I. The Methodology of Scientific Research Programmes 1978.
16 Ibid., especially ch. 2.
17 Harris K. Education and Knowledge 1979.
18 Matthews M.R. The Marxist Theory of Schooling 1980.
19 cf. Reviews by Barrow R. J. Curric. Studies. 13:4, 1981, p 371. and Aspin D.N. Comp. Educ., 16:2, 1980, pp 171-178.
20 Feyerabend P.K. Science in a Free Society 1978.
21 Lakatos I. 1978, p 117.
22 Feyerabend P.K. Against Method 1975, p 10.
23 Ibid., p 145.
24 Ibid., p 15.
25 Ibid., p 14.
26 Ibid., p 285.
27 Note that this criticism may also be directed at Popper's account.
28 Feyerabend P.K. 1975, discusses this at length, see especially pp 192-193, where he refers to "Galileo's headlong precipitancy in forcing an issue that might trouble the faith of the simple". Here as elsewhere Feyerabend assumes that we understand the role that the term 'faith' played in the lives of Galileo and Bellarmine.
29 Wittgenstein L. Philosophical Investigations 1953, p 32.
30 Quine W.V.O. "Two Dogmas of Empiricism" 1951, reprinted in From a Logical Point of View 1953, and henceforth cited as in that volume. In this instance see p 42.
31 Quine W.V.O. Roots of Reference 1974, p 137. See also Quine W.V.O. Word and Object 1960, p 23.
32 Evers C.W. "Epistemology and Justification: From Classical Foundationalism to Quinean Coherentism and Materialist Pragmatism" in Evers C.W. Walker J. 1984, p 22.
33 Quine W.V.O. 1974, p 138.
34 Quine W.V.O. Ontological Relativity and Other Essays 1969, p 126.
35 Evers C.W. Logical Structure and Justification in Educational Theory 1982, chapter 6 contains a fuller discussion of this issue.
36 This is one of the "dogmas of empiricism" that Quine attacks in Quine W.V.O. 1953, pp 20-46. The other dogma is "reductionism".

37 cf. Quine W.V.O. 1960, pp 228-241.
38 Ibid., pp 23-25.
39 Quine W.V.O. "Cognitive Meaning" 1979, p 140, see also Quine W.V.O. 1953, p 24.
40 Quine W.V.O. 1953, p 25.
41 See Quine W.V.O. 1960, ch. 2.
and Quine W.V.O. 1969, ch. 1.
42 Quine W.V.O. 1969, p 32.
43 Ibid., p 47.
44 Especially his 'Ontological Relativity' thesis in Quine W.V.O. 1969.
45 Romanos G.D. Quine and Analytic Philosophy 1983, p 96.
46 Moore G.E. "Proof of an External World" in his Philosophical Papers 1959.
47 Quine W.V.O. 1960, p 241.
48 For a discussion of the use that Quine makes of this term see Evers C.W. 1984, especially p 3 and the footnotes on that page.
49 Quine W.V.O. 1960, p 161.
50 Ibid., pp 24-25.
51 Quine W.V.O. 1969, p 24.
52 Gellner E. Spectacles and Predicaments 1979, pp 241-262.
53 See Quine's argument in his "Facts of the Matter" 1977.
54 Rorty R. Philosophy and the Mirror of Nature 1980, p 201.
55 Wittgenstein L. Tractatus Logico-Philosophicus 1961.
56 Evers C.W. 1982, chapter 5.
57 Walker J.C. "Dusting Off Educational Studies: a methodology for implementing certain proposals of John Wilson's" 1984, p 5.
58 This notion, which originates in the work of Lakatos, is central to MP and features in most MP publications, see for example p 5 of above. For a list of MP publications see bibliography under Evers C.W. and Walker J.C..
59 Walker J.C. 1984, p 12.
60 Quine W.V.O. 1960, p 250.
61 Evers C.W. 1982, pp 314-318.
62 Ibid..
63 Ibid..
64 Ibid..
65 Walker J.C. "The Development and Exercise of Personal Autonomy: An Extensional Equivalence" in Evers C.W. Walker J. 1984, p 136.
66 Quine W.V.O. 1977, p 169.
67 Evers C.W. "Naturalised Epistemology and Neural Principles of Learning: Towards a Congruence" in Evers C.W. Walker J. 1984, pp 137-142.
68 Malcolm N. Problems of Mind 1972, p 72.
69 Ibid..
70 Sellars W. Science Perception and Reality 1963, p 170.
71 Kuhn T.S. 1962.
72 Of interest here is the debate between Kuhn and Popper, the subject of which concerns the status of scientists as solvers of 'problems' or 'puzzles'. This debate is recorded in Lakatos I. Musgrave A. eds., 1970.
73 Gellner E. Legitimation of Belief 1974.

———oOo———

CHAPTER 5

RATIONALITY

In the previous chapter I argued that foundationalist empiricism should be rejected in favour of holistic coherence as an epistemological underpinning of natural science on the grounds that the latter provides the means of offering the better solution to the problem of the theory-dependence of observation statements. However that rejection might seem to have involved the acceptance of a form of pragmatism that failed to account for discontinuities that are apparent in the growth of natural scientific theory. Foundationalist empiricism was meant to provide a position of "cosmic exile", [1] to use Quine's phrase, from which to appraise theoretical developments. Without such an eternal vantage point it appears as if theories may only be conceived as responses to immediate problems and cannot be conceived as attempts to elucidate and explain, when the very criteria for what might count as a problem are uncertain.

However there are types of foundationalism based on rationalism, that may be seen as alternative attempts to provide the "cosmic exile" that Quine eschews. For example, the suggestion made in the previous chapter that either the notion of 'logical form' or 'demarcation criteria' function as a foundation for a developing network of theory may be seen as a rationalist attempt to provide 'foundations' for natural scientific theory.

At the beginning of this chapter I pursue, without success, the idea that demarcation criteria can be set out in advance of the problem to which they will be applied so that they may serve as 'foundations' for rational behaviour. I go on to argue that both rationalism and empiricism are united in a common quest for certainty through the idea of 'foundations' and that the rationalist is

no more successful than the empiricist in finding them. Instead I argue in favour of a version of something that Lakatos terms "élitism", that is to say the view that

> there is, and there can be, no statute law to serve as an explicit, universal criterion (or finite set of norms) for progress or degeneration. [2]

I do not accept Lakatos's argument that 'élitism' presupposes the notion that theories can only be judged by case law and that the only judges of progress and degeneration are theorists themselves, for this presupposition leads back to a form of pragmatism in which, as Lakatos notes, [3] it is only those 'research programmes' that reinforce the 'authorised' paradigm of enquiry that are judged to be progressing. As I argued earlier, Wittgenstein's later philosophy because of its stress on the importance of the particular context in which an utterance is made, seems to involve the existence of an élite, in the sense defined by Lakatos, in that it is only those who are 'on the inside' of a community of discourse who can warrant the assertability and intelligibility of utterances purported to be articulatable within it.

The importance of these arguments for my developing account of educational theory is illustrated by a discussion of the ways in which educational decisions might be made: it might be imagined that teachers are the only people qualified to make such decisions since it is only they who are 'on the inside' of educational forms of discourse. This would be an 'élitist' view which presupposes the pragmatic idea that problems may only be solved in the particular contexts in which those problems arise and the relativistic idea that the solutions offered vary according to the particular membership of the group of teachers concerned. Plainly this view would be unacceptable to those parents whose children were affected by the proposed solutions. Those parents might, with some justification, come to consider that their children's future was being determined according to the "prejudices" of a group of teachers.

Alternatively it might be imagined that teachers should be obliged to specify and work to a list of criteria that are made available to all interested parties. This would be a 'demarcationist' view that presupposes the desirability of a "statute book ... to guide the outsider's judgement" [4] which functions both as a 'foundation' for teaching practice and as an aid to its 'objective' appraisal.

It is not difficult to see the opposition between objectivism and relativism lurking behind the opposition between demarcationism and élitism. The topics of rationality and theory-preference are fused in the idea that rational action is secured on the basis of the best account of the way the world **actually** is, as opposed to acting in accordance with our private impulses or any body else's desires. It is this idea that lies behind objectivism and leads us to be suspicious of a version of 'élitism' which suggests that theories are to be preferred on the basis of criteria that are internal to an investigative community. However I shall argue that we need to give up the way of looking at theory appraisal that leads us towards an impossible choice between **either** criteria that are supposed to exist apart from any community **or** a community that is supposed to encompass internal or 'tacit' criteria that do not impinge in **any** way upon other communities.

Why Objectivism is Impossible

We have already seen that the notions of 'experience' and 'logical form' cannot enable us to achieve a position of permanent "cosmic exile" from which to view a developing network of theory 'objectively'. Here I argue against another attempt to outline a form of objectivism through the idea that criteria for rationality are universally applicable. This argument is meant to be conclusive against **any** form of objectivism.

Let us first examine some of the specific claims that have been made concerning the existence of criteria of rationality: [5]

a) Consistency

Winch [6] considers the possibility of the independent existence of what he calls "inter-forms of life" touchstones or criteria of rationality, such as the criterion that rationality should involve consistency. This criterion can be dismissed by pointing out that the recognition of consistency depends upon a shared theoretical background that enables us to recognise an inconsistency: for example, to recognise that there is an inconsistency in my unlocking the front door whilst saying that I am switching on the light depends upon a shared background of assumptions regarding switches, wiring, locks, doors and so on.

A further reason to reject this criterion is that rationality is not a concept that can be applied to individual acts. We are tolerant of individual inconsistencies: others may sometimes be inconsistent, but we do not always dismiss them as irrational. Even if someone were to be consistent in being inconsistent, we should be unable to know how to apply a criterion of consistency without some further appraisal of their behaviour.

b) Logical Contradiction

While logical contradictions may be recognised within one form of discourse, (the paradigm being in Boolean algebra) the need to translate other forms of discourse into a form where contradictions might be recognised always leaves open the possibility that the translation scheme introduces its own logical inconsistencies. This conclusion also follows from Quine's "Indeterminacy of Radical Translation" thesis". [7] However, as Putnam has pointed out, [8] Quine's thesis would only be plausible in the hypothetical case of an alien culture

with no interests common to our own. As it is however, Quine's thesis is implausible because human beings do share common interests. In the next chapter I argue that while it may not be possible to provide universal 'logical' criteria for rationality, common interests between translator and translated are sufficient to make translation more determinate than Quine suggests is possible and to make some 'logical' criteria for rationality appropriate in particular contexts.

c) Falsehood

The recognition of a falsehood seems to be similarly context-dependent. For example in a scientific context a statement asserting the truth of the doctrine of transubstantiation is false: in a religious context a statement about transubstantiation may be held to be true. Now both rationalists and empiricists have traditionally searched for the one form of enquiry that acts as a 'final court of appeal' for all others and is able to settle matters such as this; for without a 'final court of appeal' truth seems to be equivalent to contextually specific consensus. I shall argue that this is indeed the case but that there are good reasons for preferring certain contexts over others for the purpose of evaluating claims to truth. In this I shall hold Habermas's [9] consensus theory of truth to be important.

d) Nonsense

Ascertaining the sense of a statement seems to be prior to and hence irrelevant to the determination of its rationality. Claims to rationality may only be decided for statements that make some sense. That is not to say that there has to be no doubt about the sense of an expression before its claim to rationality can be decided. There will always be the **possibility** of doubt. Rather it is to say that those who judge claims to rationality must have a prior idea of the sense of the statement(s) concerned.

e) Coherence

The problem with this criterion is that it may only be applied **intra**-theoretically. Any attempt to establish this criterion as an **inter**-theoretical criterion generates a regress. This is because all statements and actions appear free-floating and apparently random until they are viewed from some particular theoretical perspective. There is thus a need for a further theory to allow coherence to get a purchase as an **inter**-theoretical criterion. This further theory, however, itself requires a further theory in order to establish its own coherence and so on. My earlier discussion of Quine's work is relevant here: I argued that the notion of coherence cannot function as an **inter**-theoretical criterion of rationality without a position of at least temporary 'cosmic exile' being assumed by the theorist.

f) Teleology

The adjectives 'rational' and 'irrational' only apply to those things over which people have some control. As Habermas puts it:

> We can call men and women, children and adults, ministers and bus conductors "rational", but not animals or lilac bushes, mountains streets or chairs. We can call apologies, delays, surgical interventions, declarations of war, repairs, construction plans or conference decisions "irrational", but not a storm, an accident, a lottery win, or an illness. [10]

It is **always** possible to ascribe intentionality retrospectively to what we see as rational and irrational thoughts, words and deeds. In that case, 'teleology' becomes a criterion in all cases and therefore ceases to have any particular explanatory power as a criterion for rationality generally, except at the very lowest level as a characteristic feature of all human actions.

g) Adequacy of reason

This criterion seems to start an infinite regress of criteria. In order to apply it there is a need for a criterion for adequacy that in turn may only be applied according to a further criterion for adequacy and so on into a regress

that is halted when someone simply acts. For example within educational institutions there is a variety of viewpoints that compete to determine what shall be done in the name of education, not just those of individual teachers who might not be expected to justify every decision that they make as part of their professional practice, but also those of parents, political parties, religious denominational groups and so on who might express views, the contentiousness of which places educational policy-makers in the position of having to provide justificatory arguments to support their decisions. It seems to me that there are five such types of argument that might be mounted in such a case. I outline these below, along with a brief critique of their adequacy when considered in isolation from one another and from the context in which a particular decision is to be justified.

In setting educational policies, we might rely on such appeals as these:-

1 We appeal to the personal authority of someone with a record of sound judgement and experience. The problem with this step is that we need some means of agreeing on our recognition of such a person and on the limits we wish to set to their authority.

2 We appeal to the authority of some group of individuals with similar record and experience. Again we have a difficulty in agreeing on our recognition of such individuals and recognising when their claim to authority should be limited or overturned, particularly when that involves our querying and rejecting of our own right to pronounce as in the case of an appeal to a group of which we are members.

3 We appeal to the desirable consequences that we believe might follow from the adoption of a particular course of action. The problem here is that we do not seem to be successful at prediction in the social sphere. That is why Popper [11] advocates "piecemeal approaches" to social planning with constant reassessments of courses of action. [12] The

problem with Popper's suggestion is that we do not know how often such reassessments should be made. As Lakatos [13] points out, time is needed before a development can be regarded as having come to fruition.

4 We appeal to a concern that all groups interested in a particular problem might be thought or said to share and attempt to show how one course of action is more in accord with that concern than others. This is roughly the procedure advocated by the proponents of MP that was discussed and criticised in the previous chapter.

5 We assemble all possible accounts of data and phenomena bearing on our decision, lay out all the relevant features and attempt to assign weightings to each in the hope that mathematical decidability can be invoked as a means of ensuring objectivity of judgement. However this step involves a criterion of completeness that cannot be satisfactorily applied. For example, it is doubtful whether we can ever know that we have assembled **all** the relevant alternatives and what basis can be given for weighting other than that of interests, which may already be said to presuppose a preference for one particular course of action.

From the above discussion we may conclude that even though these criteria of rationality may be applicable in specific contexts, their application always introduces a contingency that negates their claim to **universality.** Let us now examine whether this contingency can be eliminated by setting out rules of procedure that govern their own application as well as the application of criteria: Wittgenstein's use of the term "language-game" draws our attention to the importance of the interweaving of actions and words within language. If it were the case that rules exist **prior** to anyone's engaging in a language-game and serve to define every move in the subsequent game, then it is difficult to see how children could ever begin to learn their native language or how anyone could speak in an unfamiliar situation without learning such a set of

'anterior' rules first. (But how could they **do** that without already having learned language? - a reductio ad adsurdum)

While there are formal rules like grammatical rules and the [written] rules of a game, these by no means govern the game or define its limits. For example people can still be playing tennis after considerable modification of the rules and this modification can take place while they are playing. As Rizvi points out:

> while learning a game may entail explicitly learning its rules, it **need not;** one might learn them by observation and practice. But crucially rules cannot be learnt or made explicitly in an abstraction, in a context-free situation. [15] (original emphasis)

This context-dependence suggests a paradox, to which Wittgenstein refers:

> This was our paradox! no course of action could be determined by a rule, because every course of action can be made out to accord with the rule. [16]

Kripke [17] interprets Wittgenstein's "private language argument" [18] in a way that is helpful in our attempts to understand this paradox in Wittgenstein's idea of following a rule. He draws attention to the fact that our grasping of a rule comes from a **definite** number of cases yet the rule we grasp and the way we understand it is going to govern its application in an **infinite** number of cases in the future. For example, how do I know that when I recognise a tower that that recognition is in accord with my past recognition of towers? To this sceptical problem, Wittgenstein suggests a sceptical solution. The assertion "Jones means tower by 'tower'" cannot mean anything for an individual. Our naive intuition that we know what we mean is undermined by the sceptical solution. It follows that, in order to follow a rule, it must be possible to check whether a rule is being followed and that presupposes a communal form of discourse within which rules **evolve** as the form of discourse develops. Hence it is not possible to set out rules once and for all that

remain ossified within a "statute book" divorced from the practical forms of discourse in which they are supposed to be applied.

This impossibility is debilitating to all forms of objectivism, whether these depend upon the existence of **one** permanent neutral framework of enquiry, form of discourse or set of criteria to which we can ultimately appeal in order to determine the nature of rationality. In each case, their application in context is interwoven with, and as important as their formulation. Any attempt to 'objectify' that application always generates a logically regressive chain of frameworks, forms of discourse or sets of criteria, all purporting to 'objectify' the application of their predecessors in the chain.

Practical Knowledge and Relativism

I suggested in chapters 1 and 2 that recent re-examinations of the question of the nature and scope of educational theory can be seen as a manifestation of disquiet about the dominance of foundational empiricist epistemology in previous approaches to that question. The idea that theory should guide educational practice has led to the assumption that theory is somehow prior to practice so that it has been assumed that if only we could get the theory of education 'right', appropriate, efficient and suitable practice would follow. However recent difficulties encountered in attempts to give an account of educational theory have been set in contraposition to the idea, that while theory is important, it is somehow a derivative of practice. Instead of concentrating on the nature and scope of **theory**, some philosophers of education have begun to look at the question of the nature and scope of practice. [19]

Ryle had already severely criticised notions of 'theory directing practice' before philosophers of education began to be interested in the question of the

nature of practice. In The Concept of Mind [20] Ryle attacks the notion that decisions about what to do necessarily precede action - as if rationality is always secured when a series of deliberations about the application of universal criteria precedes a series of actions. This notion he terms the "intellectualist legend" and traces this "legend" at least as far back as Descartes' "myth" of a dualism of mind and body. He caricatures this legend as involving a "ghost in the machine" 'philosophy', according to which it is believed that successful practice requires to be 'rehearsed' in the mind prior to an "intelligent performance" of it. Ryle gives examples of people's doing things, of which it makes little sense to say that their practice is somehow guided by a theory rehearsed in the mind: for instance, riding a bicycle and playing the part of a clown. [21]

Oakeshott [22] makes the same kind of point when he distinguishes between "technical" knowledge that can be formulated in propositions and "practical" knowledge that exists only in use. This distinction has been recently adopted by Hirst as a means to provide us with a way of elucidating the nature of educational theory. Hirst [23] believes that progress can be made towards giving an improved account of educational theory if 'practical' or 'tacit' kinds of knowledge are made explicit. By giving an account of the 'logic' of practical discourse through empirical research of "operationally effective" [24] current practice, Hirst supposes that "rationally defensible principles" [25] will be elicited or emerge, against which future practice may be judged. Hirst points to two passages from part of McCarthy's [26] exposition of Habermas's work that seem to Hirst to indicate (that) Habermas is attempting to articulate the basic presuppositions of speech acts. These presuppositions are supposed by Hirst to "set out certain normative conditions for rational decisions and consensus." [27] However as I argue in chapter 7, there is something contradictory about an attempt to provide a 'logic' of practical discourse through empirical research.

It is not difficult to see the attractions that Habermas's kind of delineation of rational practice has for Hirst and others. If it is accepted that practical knowledge is an unformalisable, yet essential part of any practice, then it looks as if there can never be any objective way of evaluating practices against one another unless practical knowledge can be made explicit and hence amenable to rational argument. Paradoxically then empiricism and rationalism can be seen to be united in a common quest for certainty which manifests itself in certain attitudes towards the nature of any investigation.

Let us consider those things which empiricism and this type of rationalism [28] may be thought to have in common. In both there is a concern for independence of mind uninhibited by concern for authority, free from the influences or effects of prejudice and tradition. In both there is an attempt to discover the world anew by finding generalisations to be subsumed under a covering law. As Bacon puts it in connection with empiricism:

> there remains but one course for the recovery of a sound and healthy condition - namely, that the entire work of understanding be commenced afresh, and the mind itself be from the very outset not left to take its own course, but guided at every step. [29]

This guidance is supposed to be provided by a set of rules, a set of directions which can be learnt by heart and whose application is purely mechanical and follows from the rules themselves. [30]

Hence it is possible to see that Bacon's programme for empiricism is similar to the type of rationalism that I earlier characterised as 'demarcationism' in that it leans towards the establishment of a set of technical rules of enquiry. This similarity allows the objectivist two attempts to secure certainty. If the theory of correspondence between sense data and the world cannot validly function as a foundation for an empiricist programme, perhaps the rationalist idea of explicit criteria governing technique could. Natural scientists have been

regarded as so successful in the predictive validity of their theories that even if correspondence has fallen into disrepute as a theory of truth, the idea that criteria can be made explicit and provide a method of objective enquiry can replace it acceptably.

However as I have argued, the predictive validity of natural scientific theories cannot be attributable to the constant application of a formalisable technique, as Bacon seems to suppose. The illusion of the sovereignty of pre-given techniques arises because when scientists step outside the realm of natural science, they often carry with them nothing but their technique. As Oakeshott puts it:

> the great prestige of the natural sciences has, in fact, been used to fasten the rationalist disposition of mind more firmly upon us, but that this is the work, not of the genuine scientist as such, but of the scientist who is a Rationalist in spite of his science.[31]

In other words there is a danger that when some natural scientists or their sympathisers try to adapt what they assume to be natural scientific practice to other practices, they imagine that **all** parts of the practices that they investigate should be formalisable. For example current educational practice is much influenced by the idea that objectivity is ensured by the constant application of a set of criteria or algorithms; hence there is a proliferation of policy statements all purporting to supply a "statute book" of criteria. The trend towards criterion-referenced assessment may be seen as a special case of this proliferation: it is widely assumed that the performance of a task can be matched with a statement of competence, and believed that such a procedure is more 'objective' than the procedure whereby an accomplished practitioner observes an apprentice and offers to report on his progress.

The reservation that such assessment criteria might be subject to some indeterminacy of interpretation seems not to deter some of the proponents of criterion referenced assessment. These proponents do not seem to question whether, and if so how, the availability of a list of performance criteria [32] necessarily secures or promotes the 'objectivity' of the assessment. On their view objectivity is ensured by the matching of actions with impersonal criteria, both of which may be supposed to exist apart from the conventions and norms operating in any community of practitioners who might be thought to have an interest in the assessment and thus to be the ones to determine what counts as 'objective' within it.

These recent moves towards this form of "rationalism" in educational practice may be the result of a misunderstanding of the nature of natural science on the part of these "rationalists" who miss the point that within natural science, both practical and technical knowledge are important. They may be deluded in thinking that practical knowledge can be formalised in order to make educational practices objectively precise and their delusion may lead them to formalise procedures which, when operationalised, have the effect of suggesting that debate about the best course of action in a practical context is otiose unless it is concerned with the application of a set of technical rules. However, as we have seen, the outcome of such a debate cannot be to determine the best course of action objectively. Instead the net effect of unduly restricting practical discourse in this way may be to lead practitioners to a sense of hopelessness that their practices are after all, relative to the particular set of rules to which they are supposed to work and in whose formulation they have played little part.

In the next chapter I attempt to substantiate this hypothesis. I turn now to consider T.S. Kuhn's account of natural science for I believe that his account

offers the starting-point for providing an account of natural science as a practice that moves us beyond objectivism and relativism. I go on to argue that there are sufficient similarities between practices for all practitioners to share a general sense of "community" that could enable them rationally to establish their priorities if the grip that the notions of objectivism and relativism have on their thinking were to be slackened.

T.S. Kuhn's Account of Natural Science

Kuhn has produced two major publications, The Structure of Scientific Revolutions [33] and later The Essential Tension [34], in which he supplements and modifies his earlier work. The early Kuhn is often considered to be advocating a similar thesis to that of Feyerabend, in that both writers refer to incommensurability and pluralism and are consequently often accused of advocating relativism. In Kuhn's case this accusation arises because of his insistence that it is only the scientific community which is in a position to decide which theories and normal working practices are to be adopted. In other words Kuhn adopts an 'élitist' solution to the problem of appraising and evaluating scientific theories.

The notion of a "paradigm" is central to Kuhn's work. However for Kuhn the term "paradigm" takes on a number of different meanings [35], of which three are central. Paradigm (sense 1) refers to those **theories** that the scientific community take to be unproblematic and against which other theories are tested. Paradigm (sense 2) refers to those **practices** which the scientific community takes to be unproblematic, for example basic measurement techniques. Paradigm (sense 3) refers to the common training and **socialisation** processes that Kuhn believes operate so as to bind scientists into a tightly knit community or communities with strong consensual norms.

As Masterman [36] points out, Kuhn often conflates these different meanings in his writing, so that "paradigm" becomes a multi-purpose term roughly relating overall to the idea of a 'framework within which scientists are supposed to work'. Scientific training for Kuhn is supposed to involve the dogmatic initiation of trainee scientists into the "normal science paradigm" in that they need to use textbooks which rarely if ever dwell upon the problematic nature of much scientific discovery, the personality of the discoverer and the social and political context in which the discovery is made. Instead trainee scientists are led to believe that scientific progress is a-historic, a-personal and cumulative, each new discovery adding to the previously obtained body of knowledge. Socialisation within the scientific community merely reinforces this view. As Kuhn points out, the scientific community could not function unless "scientists fail to reject paradigms when faced with anomalies or counter-instances." [37]

Paradigm (sense 3) referred to above is supposed by Kuhn to lead trainee scientists to become familiar with paradigms (senses 1 and 2) so that they may contribute to the reworking and refining of paradigms, an activity to which Kuhn refers as "puzzle solving" [38] and on which he alleges scientists spend much of their time. All this is much to the disgust of Popper [39] who likes to think of scientists as "problem solvers" [40] who can and do spend much of their time breaking out of their paradigms (senses 1 and 2), although as I noted earlier Popper has no way of showing how this 'break out' might be achieved.

It looks as if Kuhn is suggesting that scientific progress is made pragmatically by developing theories as responses to minor anomalies that show up from time to time. However, rather than its being the case that scientific progress is continuous, Kuhn is able to point out that the history of science is full of

examples of long periods of "normal science" broken by occasional periods of "revolutionary science" that arise when scientists discover many anomalies within the normal science paradigm (sense 1). While it is always possible to accommodate an anomalous observation by slightly modifying the main paradigm (sense 1) (as I noted in my earlier discussion of Quine's work) and while it is also always possible to discredit or ignore the individual scientist who made the observation, (as Kuhn shows [41]) there are occasions when the number of occurrences of anomalies is so great that scientists start to feel under increasing psychological pressure and eventually attempt a "mass break out" from the "normal science paradigm".

During these periods of "revolutionary science", a number of alternative paradigms (1) and (2) is considered, each supported by various groups within the scientific community. Eventually a successor as chief paradigm (1) emerges from the competing paradigms and a new period of "normal science" begins.

Kuhn maintains that the new and old paradigms are now radically 'incommensurable' in the sense that the same words in each of them are used in a completely different way after a period of "revolutionary science". He writes: "after a revolution, scientists work in a different world." [42] This argument makes it look as if scientific progress is dependent upon the psychology of individual scientists; in this way Kuhn's work may be regarded as a kind of sociology of the scientific community rather than an account of the **logic** of scientific discourse. Furthermore the same argument is circular since two particular sciences (psychology and sociology) are supposed to hold the key to the way that **all** sciences function.

In The Essential Tension [43] Kuhn attempts to takes account of some of the criticisms of his earlier work by incorporating some demarcation criteria within his elitist philosophy of science. Kuhn now agrees with his critics that such

standard criteria as accuracy, simplicity, consistency, breadth and predictive power "provide the shared basis for theory choice". [44] Nevertheless, for Kuhn, these criteria can never **determine** theory choice nor can they ever be explicitly stated and applied, because of the indeterminacy of interpreting these or **any other** criteria. Instead Kuhn suggests that such criteria function as **values** that **guide** scientific communities.

For Kuhn, there will always be debate about the ways in which particular theories should be judged but that does not make theory preference a matter of "taste". Instead Kuhn recognises that, in so far as theories can be said to exist, theories exist in **use.** That is to say, theories are put forward, justified and compared by members of a community who are guided by certain values and who agree on particular ways of describing the world that are assumed by those theories. That is not to say that such agreement is uniform. Rather it is to say that there are overlapping ways of using scientific terms that make it possible for the proponents of rival scientific theories to interpret what each other is doing.

Hence, for Kuhn, theory choice becomes a matter of translation of ideas and statements between the proponents of different theories. Their shared commitment to the previously mentioned values is sufficient to ensure that the effort of translation is worthwhile.

> However incomprehensible the new theory may be to the proponents of tradition, the exhibit of impressive concrete results will persuade at least a few of them that they must discover how such results are achieved. For that purpose they must learn to translate, perhaps by treating already published papers as a Rosetta stone or, often more effective, by visiting the innovator, talking with him, watching him and his students at work. Those exposures may not result in the adoption of the theory; some advocates of the tradition may return home and attempt to adjust the old theory to produce equivalent results. But others if the new theory is to survive, will find that at some point in the language-learning process they have ceased to translate and begun instead to speak the language like a native. No process quite like choice has occurred, but they are practising the new theory nonetheless. [45]

This argument may be extended to explain both the attraction and the failure of recent attempts made by some educational theorists to emulate natural scientific methodology. These educational theorists may be seen to be attracted to what they assume to be natural scientific methodology for the reason that they too are attracted by the "exhibit of impressive concrete results". However, by characterising natural science as from within the paradigm of foundationalist empiricism, these educational theorists have been attempting to emulate the activities of those who use procedures that are not part of natural scientific methodology and hence are not likely to exhibit the "impressive concrete results" that are commonly assumed to be produced by natural scientists.

This argument may also be extended to explain why 'scientific' societies may be considered to be more rational than primitive societies. I refer to the literature concerned with the issue of the 'rationality' of the Azande. [46] In the course of a discussion on this Winch [47] criticises Evans-Pritchard for holding that 'his' standard of rationality can enable him to deem Zande belief in witches to be irrational. However Winch points out that Evans-Pritchard speaks from

> a culture whose conception of rationality is deeply affected by the achievements and methods of the sciences and one which treats such things as a belief in magic or the practice of consulting oracles as almost a paradigm of the irrational. [48]

Consequently Winch holds that Zande beliefs and actions may only be appraised against and within Zande 'form of life'. In this some may see an élitist account of rationality resting upon ethnocentric preconceptions.

Other writers, by contrast, argue that Western European 'forms of life' **are** more rational than those of the Azande and that this is **because of** the achievements of the natural sciences. For example Gellner writes

> The importance of ... the scientific industrial 'form of life' whose rapid global diffusion is the main event of our time, is that it does provide us with a solution to the problem of relativism ... The cognitive and technological superiority of one form of life is so manifest and so loaded with implications ... that it simply cannot be questioned. [49]

Taylor [50] too argues that trans-cultural judgements of rationality can be made on the basis of the supposed superiority of a theoretical culture over an a-theoretical one because the former effectively lays out the way the world is with a perspicuity that commands the attention of the latter both intellectually and by way of its technological applications.

Taylor does not suggest that the Azande are less rational because they believe in magic or consult oracles. He accepts that such beliefs and practices are incommensurable with Western European ideas, the post-Enlightenment origins of which have tended to separate the notions of "understanding" and "attunement" through the ideal of scientific disinterest. Instead Taylor suggests that the Azande are able to **recognise** the technological advances that result from the theoretical progress that the natural sciences have made. For example, the Azande may not understand the theory of vaccination but they certainly recognise the process of someone recovering from a fatal illness. To take another example, they may not understand the principle of the internal combustion engine but they certainly recognise the advantages that transport might afford them.

The argument may be put simply as follows: rationality depends upon theoretical understanding. Western European 'forms of life' support the enterprise of natural science. Natural science leads to technological control which commands the attention of non-scientific 'forms of life'. Therefore Western European 'forms of life' are more rational than non-scientific 'forms of life'. Notice that this argument does not suggest that 'technological control' functions as a universal criterion of rationality that both Western Europeans

and the Azande recognise. Nor does this argument suggest that the concept of rationality is completely circumscribed by theories about the natural world. It may be that in time certain features of Zande 'forms of life' may come to outweigh 'technological' considerations to bias judgements of rationality in favour of the Zande. However despite radical incommensurabilties between 'scientific' and 'primitive' forms of life, trans-cultural judgements of rationality may be made in favour of the former because **presently** the former's technological control commands the attention of the latter in a way that outweighs any claims that the latter may make to command the attention of the former.

If Kuhn is correct in concluding that scientific theory preference can be explained by referring to the common values that bind the scientific community together and make it possible for scientists to interpret what each other is doing, then it follows that any group of theorists who share those values may also come to prefer some theories over others on the basis of their interpretations of what each other is doing. Just as natural scientists may interpret each other's work fruitfully so too other types of theorists may benefit by interpreting the work of natural scientists. Their interest might not quite coincide with the interest of the natural scientist, nevertheless there will be sufficient overlap to make interpretation possible. In other words Kuhn's account of scientific theory preference may well be applied to **any** type of theory if it can be shown that forms of discourse are commensurable - that is to say that the use of a term in one form of discourse is related to the use of a term in another.

Commensurability

First let us examine the notion of commensurability as it may be applied within natural science. The early Kuhn and Feyerabend's attack on commensurability lead to the idea that during periods of what Kuhn calls "revolutionary science" the same words are used in **completely** different ways. However Putnam [51] argues against this idea. He argues that while the uses of scientific terms are continually changing, not all of their uses change at the same time. For example Bohr's (1904) electron had a negative charge just as our present-day electron does, even though other properties may have changed. In this way Putnam seems to adopt a 'cluster' theory of reference in which the elements of a cluster are related by something like a 'family resemblance'. We can refer to Bohr's electron because we apply the "principle of charity" [52]. We say in effect that there are sufficient common properties between the two 'electrons' to justify our calling them the same.

In order to use a scientific term intelligibly a speaker needs a standard minimum amount of information, something that Putnam calls a stereotype. Additionally a speaker needs some examples of extensions of the term. For example speakers understand the term 'electron' if they have a stereotype which may consist of 'negative charge, small, part of an atom etc.', and some extensions of the term like 'Beta particle, present when current flows etc.' Speakers do not need, nor could they have, all the extensions of a term because of the "linguistic division of labour" thesis [53]. Putnam uses this phrase to draw attention to the social nature of language and the way in which the extensions of a term are divided among a community of speakers. Putnam puts it this way:

> Every linguistic community ... possesses at least some terms whose associated 'criteria' are known only to a subset of the speakers who acquire the terms, and whose use by the other speakers depends upon a structured cooperation between them and the speakers in the relevant subsets. [54]

The "linguistic division of labour" thesis allows me to explain why Kuhn's earlier incommensurability thesis is implausible and why his earlier talk of scientists inhabiting "different worlds" [55] is unhelpful. Since scientists do not all share the **same** extensions of terms and do not all shift allegiance from old to new paradigms at the **same** time, then scientific discourse reflects both old and new extensions of terms for some time after periods of "revolutionary science". Consequently linguistic practices that link new terms with old remain within the scientific community so that sense can be made of the idea of progress. That is not to say that **one** idea of progress governs **all** future ideas of progress. Rather it is that the idea of progress becomes, like the extensions of terms across the scientific community, spread across not only the scientific community but other communities as well, evolving with each change in linguistic practice. The Kuhnian incommensurability thesis is implausible precisely because speakers and communities of speakers do not remain in isolation from one another.

Let us now consider the notion of commensurability as it might apply **across** forms of discourse by making reference to Goodman's Ways of Worldmaking. [56] On Goodman's view it matters little whether we hold that there is a world of which it is possible to have a right version or whether we want to say that our versions are just our worlds, as long as we realise that what we say does not **correspond** with the world. Goodman suggests that we find the idea of multiple worlds unpalatable because we try to stretch the use of the word 'world' beyond its reach so that the world either becomes a fixed entity leading to utter resignation on our part as to the possibility of ever knowing it, or to "irresponsible relativism". Instead Goodman suggests that we should accept a "judicious vacillation" between worlds, rather like the physicist who

> flits back and forth between a world of waves and a world of particles. ... we are monists, pluralists, or nihilists not quite as the wind blows but as befits the context. [57]

The important point here is that the physicist's description of electromagnetic radiation depends upon the way in which that description enmeshes with other forms of discourse in which the physicist engages. The physicist's use of the term 'wave' depends for its effectiveness upon a richness that is derived from a 'family resemblance' between the roles that the term plays in all forms of discourse in which that set of letters has meaning. The same may be said of other scientific terms. Hence scientific terms are not used in isolation from other forms of discourse, rather their scientific use is parasitic on non-scientific usage.

Rather than there being a privileged set of terms, for Goodman any set will do, whether these are fundamental particles or everyday objects or even fictional entities. Thus when we are asked to consider whether someone is a Don Quixote or a Don Juan, we find this question just as useful, and probably slightly easier to answer, as asking whether someone is paranoid or manic-depressive. Hence "world-making" is not just the preserve of the scientist; the artist too makes worlds.

> When a scientist first relates heat to motion or the tides to the moon, our worldviews are drastically altered. And when we leave an exhibit of the works of an important painter, the world we step into is not the one we left when we went in, we see everything in terms of those works. [58]

Even though Goodman accepts that there are many "right" ways of worldmaking, that does not mean that all "right" alternatives are equally good for every purpose. Instead we need to construct "right" versions for particular purposes. These versions may involve extensional logic, fundamental particles, or paintings. On Goodman's view, a "right" version cannot be **grounded** in any context-free way.

We may then have different "versions" of the 'world' and each version can be "right" in the sense that a "right version" maximises "the cogency and the compactness and comprehensiveness, the informativeness and organising power of the whole system". [59] "Rightness" is primarily a matter of "fit", - fit to what is referred to in one way and another; goodness of fit is limited by all sorts of things, including deductive rightness, inductive rightness and rightness of categorisation. For example:

> Whether a picture is rightly designed or a statement correctly described is tested by examination and reexamination of the picture or statement and what it refers to by trying its fit in varied applications and with other patterns and statements. [60]

Hence theories are not only to be understood as constituent parts of one form of discourse, but also are related to all forms of discourse through a process of gradual adjustment brought about by the use of their terms in different contexts. The richness of meaning of both scientific and non-scientific terms depends upon family resemblances between them and our rationality depends upon our ability and willingness not to try to find one form of discourse to which all others are supposed to relate but rather to be open-minded enough to challenge all of our preconceptions by continuing to place features of various forms of discourse in **temporary** "cosmic exile" while the coherence of the rest of our theoretic network is increased.

Quine's "seamless web" may thus be made up of all kinds of material. Yet it is not hard to envisage some overall theoretical web within which a variety of forms of discourse constantly shift into the most coherent arrangement, both on the basis of theories about the sorts of lives that people want to lead and on the basis of those theories that have the most empirical content. The upshot of all this discussion is that there are not likely to be any significant differences between various means of preferring **any** particular type of theory. Theory preference is always underdetermined by 'experience' and so 'value'

considerations must be taken into account in order to enable us to determine theory choice in the concrete instances in which such choices are made. In the next chapter, I argue that the values that Kuhn suggests are the guides to natural science may themselves be filtered out over time according to the way in which a variety of discourses enmesh.

In this chapter we have moved beyond objectivism and relativism to see how Kuhn's account of natural science offers the possibility of accounting for the way in which a theoretic network that includes various types of theory might develop according to the ways in which the proponents of rival theories interpret what each other is doing. We have seen how natural science may be considered to be made up of subsets of speakers and we have seen how the idea of the linguistic division of labour thesis within natural science must be applied to other forms of discourse in order to account for linguistic practice within science.

The overall view that emerges is of a theoretic network that is supported by a variety of linguistic communities whose memberships, practices and evaluative concerns overlap, making the effort of interpretation both worthwhile and possible. Moreover it is during the process of interpretation that the use of a term in one form of discourse acts as a 'touchstone' for its use in other forms of discourse. We may achieve the opportunity of temporary cosmic exile from our developing network of theory by continuing to place each of our preconceptions in jeopardy while our developing theoretic network is rearranged.

———oOo———

NOTES AND REFERENCES

1 Quine W.V.O. Word and Object 1960, p 235.
2 Lakatos I. Mathematics, Science and Epistemology 1978, p 111.
3 Ibid., pp 117-120.
4 Ibid. p 110.
5 cf. Wilson B.R. ed. Rationality 1970.
Hollis M. Lukes S. eds. Rationality and Relativism 1982.
6 Winch P. "Understanding a Primitive Society" 1964, reprinted in Wilson B.R. 1970, and Winch P. Ethics and Action 1972, pp 8-49, see especially pp 19-21.
7 Quine W.V.O. 1960, ch. 2, and Quine W.V.O. Ontological Relativity and Other Essays 1969, ch. 1.
8 Putnam H. Meaning and the Moral Sciences 1978, pp 41-50.
9 See Hesse M. "Habermas's Consensus Theory of Truth" pp 206-235, in her Revolutions and Reconstructions in the Philosophy of Science 1980.
10 Habermas J. The Theory of Communicative Action Vol 1, 1984, p 8.
11 This tension arises because of Popper's advocacy of bold conjecture in the field of natural science and his advocacy of piecemeal approaches in the field of social philosophy. See his The Poverty of Historicism 1961 and The Open Society and its Enemies Vol II 1945.
12 Popper argues that bold social experimentation would require great social control. However social control limits the scientific freedom to reject failed experiments. Therefore the methodology of conjecture and refutation can only be applied piecemeal to social science.
13 Lakatos I. 1978, ch 2.
14 Wittgenstein L. Philosophical Investigations 1953, p 60.
15 Rizvi F. The Fact-Value Distinction and the Logic of Educational Theory 1983, p 58.
16 Wittgenstein L. 1953, p 81.
17 Kripke S. Wittgenstein On Rules and Private Language 1982.
18 This is usually taken to commence at P.I. 243. However Kripke argues that the solution to the paradox has already been given in the section that **precedes** P.I. 243.
19 This 'move to practice' in education may be seen to be exhibited by Barrow R Giving Teaching Back to Teachers 1984; by Carr W., some of whose publications are given in the Bibliography and whose work is discussed in chapter 7; by Rizvi F. 1983; by Walker J. and Evers C.W.. Again see the Bibliography for a list of some of their publications.
20 Ryle G. The Concept of Mind 1966.
21 Ibid., p 33.
22 See Oakeshott M. Rationalism in Politics 1962. See also Polanyi M. Personal Knowledge 1958, whose notion of "tacit" knowledge has won some support in attempts to account for the apparent ability for people just to act intelligently but unreflectively. According to Polanyi people are supposed to share a common interpretive framework that is not statable but is simply shared by those working within it. For a discussion of some implications that Polanyi's work might have for educators, see Brownhill R.J. Education and the Nature of Knowledge 1983.
23 Hirst P.H. "Educational Theory" in Hirst P.H. ed. Educational Theory and its Foundation Disciplines 1983, p 28.
24 Ibid., p 21.
25 Ibid..
26 McCarthy T. "Rationality and Relativism" in Thompson J.B. Held D. eds. Habermas: Critical Debates 1982.
27 Hirst P.H. 1983, p 27.

28 In a recent collection titled Habermas and Modernity 1985, the editor R.J. Bernstein describes Habermas as a defender of "the legacy of western rationality" (p 25) and in the same volume A. Giddens writes of Habermas's "preoccupation with isolating the conditions of rational decision making". (p 95) These writers support the view that Habermas's work is an attempt to produce a comprehensive theory of rationality.
29 Bacon F. Novum Organum (many editions) p 182 in the "Fowler" edition.
30 Ibid., p 233.
31 Oakeshott M. 1962, p 30.
32 This term has developed out of the "Action Plan" which was discussed in chapter 3. It is meant to define the standards of practical performance to which students should aspire.
33 Kuhn T.S. The Structure of Scientific Revolutions 1962.
34 Kuhn T.S. The Essential Tension 1977.
35 Kuhn concedes this point in his "Logic of Discovery or Psychology of Research?" in Lakatos I Musgrave A. eds. 1970, pp 1-24.
36 Masterman M. "The Nature of a Paradigm" in Lakatos I. Musgrave A. eds. 1970, pp 59-91.
37 Kuhn T.S. 1962, p 78.
38 Kuhn T.S. 1970, p 4.
39 I alluded to this distinction between 'puzzles' and 'problems' in connection with my earlier discussion of pragmatism.
40 Popper K.R. "Normal Science and its Dangers" in Lakatos I. Musgrave A. eds. 1970, p 54.
41 Kuhn T.S. 1962, p 78.
42 Ibid., p 135.
43 Kuhn T.S. 1977
44 Ibid., p 322.
45 Ibid., p 339.
46 see Wilson B.R. ed. 1970.
and Hollis M. and Lukes S. eds. 1982.
47 Winch P. 1964.
48 Ibid., p 9 in Winch P. 1972.
49 Gellner E. Cause and Meaning in the Social Sciences 1973, p 87.
50 Taylor C. Philosophical Papers 2 1985, especially pp 134-151.
51 Putnam H. 1978, p 58.
52 Ibid., p 22.
53 Putnam H. Mind Language and Reality 1975, pp 227-229.
54 Ibid., p 228.
55 Kuhn T.S. 1962, p 120.
56 Goodman N. Ways of Worldmaking 1978.
57 Goodman N. Of Mind and Other Matters 1984, pp 32-33.
58 Ibid., p 192.
59 Goodman N. 1978, p 19.
60 Ibid., p 139.

———oOo———

CHAPTER 6

HERMENEUTICS

In the previous chapter I argued that the question of accounting for theory preference in the natural sciences involves the proponents of rival theories interpreting what each other is doing according to those values that are shared by members of the natural scientific community. I also argued that the members of a community of educational theorists might be sufficiently attracted by the results of those interpretive procedures within natural science that they attempt to emulate them when theorising about education. I begin this chapter by examining whether there is an additional interpretive dimension involved in the case of theorising about education that is not present in the case of natural science. For the purposes of this examination I assume that educational theory may be considered to be a subset of social theory. My earlier argument in favour of the holistic idea of a network of theory comprised of overlapping subsets makes this assumption uncontroversial for me. I go on to consider the question of the nature of practical interest and discuss the educational implications of Gadamer's hermeneutics in which he shows how theory and practice can be fused in the notion of a conversation.

The Idea of an Interpretive Social Science

Natural and social science are often contrasted by those who point to the different types of discourse involved in each case. So Winch [1] follows Wittgenstein in arguing that any form of discourse is rule-governed. He assumes that both natural and social sciences are concerned with the investigation of regularities and that these investigations presuppose that judgements of identity can be made according to rules appropriate to the particular activity. Winch asserts that there is a three way relationship operating in both natural and social sciences between the objects of study, the

scientist, and the scientific community. In each case the scientist communicates the regularities about the object of study he claims to have isolated to the scientific community of which he is a member.

However in the case of the natural scientist the only communication that takes place is that between the scientist and his colleagues in his scholarly community; this presupposes only **one** set of rules governing judgements of identity essential to the identification of regularities in that discourse, For the social scientist, by contrast, there are two kinds of communication: that which takes place between the scientist and the objects of study (people), and that which takes place between the social scientist and his colleagues in **his** community. This presupposes **two** sets of rules appropriate to the identification of regularities in that community; this is sometimes referred to as the "double hermeneutic" [2] operating in the case of the social science.

According to Winch, the "double hermeneutic" imposes on the social scientist the joint requirement - and the double problem - of being both a part of the object of study as well as a member of a community of fellow social scientists. Social scientists aim to provide an account of the objects of study that satisfies the rules of intelligibility and identity operating in the case of both the social scientific community and of the community being studied. In other words, Winch rules out the possibility that the social scientist can grasp the rules operating among those who serve as the objects of study, without being a member of both the social science community and of the community being studied. Furthermore if the social scientist is a member and participant in both communities, the possibility of appraising beliefs or actions in one community as more or less rational than beliefs or actions in another community seems to be excluded.

Suppose for example that a social scientist wishes to investigate the effect of astrology on the lives of a particular group of people who regularly consult horoscopes and in some way adjust their lives accordingly. Suppose as well that the social scientist considers that it is irrational to believe in the findings and recommendations of astrology. How can the social scientist understand those for whom astrology is important and for whom it is regarded as rational to consult horoscopes? Only, according to Winch, by entering the 'form of life' of the astrology believers. But this is impossible. The 'disinterested' (if such a position is possible) social scientist simply cannot identify instances when astrology is important for people because such a possibility is ruled out a priori for him; and **pretending** that astrology is important cannot help him.

Winch seems to be unable to account for the way in which people from different 'forms of life' might come to understand what each other is doing. However he avoids this difficulty by noting that while the social scientific community and the astrology believers disagree about astrology, they share what Winch calls "limiting notions". [3] These are notions that all humans share regarding such biological universals as birth, death and sexual relations. These "limiting notions" are supposed to give us the basic purchase required on the enterprise of understanding each other.

However it is inter-cultural as opposed to intra-cultural actions that present the most important occasions for social scientific analysis and enquiry. For example for some social scientists, an analysis of Zande witchcraft may well be interesting but less important than an analysis of soccer hooliganism or mugging. Winch treats such instances as "culturally situated" and hence conventional. Furthermore "limiting notions" cannot serve to determine which account of a social phenomenon is to be preferred from among a multitude of

possibilities. Winch's problem is that he wants to work out a way in which ordinary language can be used to redescribe ordinary language and so gets caught up in the familiar difficulty for Wittgensteinians [4] - that of accounting for the alleged superiority of any one form of discourse over others. Perhaps as Gellner [5] suggests, Winch might agree with Louch [6] that social science cannot offer anything more than descriptions of the ordinary talk of ordinary people who happen to want to talk about certain aspects of their lives.

Such a move effectively puts an end to the idea of a 'social science'. The move is therefore commonly resisted on the grounds inter alia that it would also put an end to the idea that theoretical understanding is a necessary underpinning for rationality. Such a move would rule out the possibility of social theorists claiming some special status for their contributions to debates on the social controls and pressures that might be brought to bear in a particular conflict between interested parties in a plural society. In order to resist this move, Giddens suggests, social scientists should develop a technical meta-language that serves both to distinguish the activity of the social scientist from that of lay-actor and serves to account for the **superiority** of the former's theoretical output.

This move may seem to suggest that the social sciences follow the model of the natural sciences but Giddens stresses that social sciences have to deal with an additional frame of meaning not present in the natural sciences and involving the "double hermeneutic". As he puts it:

> Any generalised theoretical scheme in the natural or social sciences is in a certain sense a form of life in itself, the concepts of which have to be mastered as a mode of practical activity generating specific types of descriptions ... Sociology, however, deals with a universe which is already constituted within frames of meaning by social actors themselves, and reinterprets these within its own theoretical schemes, mediating ordinary and technical language. [7]

In this way Giddens seems to suggest that natural scientific discourse is set apart from ordinary discourse: the only interpretive dimension relevant to the work of the natural scientist is that involving his interpretation of the work of other natural scientists. However I think that Giddens is mistaken in his apparent assumption that natural scientific discourse is any more "all of a piece" than, say, a combination of sociological and ordinary discourse. As Hesse puts it;

> I take it that it has been sufficiently demonstrated that data are not detachable from theory, and that their expression is permeated by theoretical categories; that the language of theoretical science is irreducibly metaphorical and unformalisable, and that the logic of science is circular interpretation, reinterpretation, and self-correction of data in terms of theory, theory in terms of data. [8]

In other words, "the language of theoretical science" is no less "metaphorical and unformalisable" than ordinary language. Moreover the very broad distinction within natural science between the experimental and theoretical communities involves a member of the 'theoretical' community interpreting both the work of his theoretical colleagues **and** the work of the 'experimental' community. The same may be said for a member of the 'experimental' community. Now this very broad distinction **within** natural science may be likened to the distinction between social scientist and social actor. Just as the theoretical physicist has to interpret what his experimental colleagues are saying, so the social scientist has to interpret the ordinary language of the actor, as well as interpreting what his own theoretical colleagues are saying.

It may well be, as Giddens argues, that there is "considerable complexity" [9] in the case of the sociologist/actor relationship that is not so obvious in the case of the theoretical/experimental physicist relationship. Nevertheless this "complexity" makes the difference between natural and social sciences one of degree rather than kind. Giddens also argues that:

> there is a continual 'slippage' of the concepts constructed in sociology, whereby these are appropriated by those whose conduct they were originally coined to analyse, and hence tend to become integral features of that conduct (thereby in fact potentially compromising their original usage within the technical vocabulary of social science).[10]

Now we have no reason to suppose that this "slippage" is any more a feature of social science than of natural science. Yet such "slippage" may be much more obvious or **apparent** in social science because social science is so closely connected with ordinary forms of discourse and the interests that such discourse reflects.

As I have already argued, there is a 'linguistic division of labour' at work across the scientific community that brings it about that scientific communication is only partial and that there are many interpretive dimensions relevant to the choice of theories that the community makes. In particular, the notion of the possibility of theory-preference depends upon the range, richness and functional utility of those metaphors that are theoretically situated - a richness that is itself dependent upon the ways in which terms from a variety of forms of discourse come to interact.

However even if it were accepted that there are many interpretive dimensions relevant to theory preference in natural and social science (such that natural scientific discourse is no more "all of a piece" than social scientific discourse) and even if it were accepted that theory in both cases were underdetermined by data, it could still be argued that those **interests** that determine theory preference in natural scientific theory are different from those that determine theory preference in social scientific theory. It might be argued that the natural scientific interests of simplicity, coherence, scope and so on are of a different kind from the **practical** interests that might determine which of two rival educational theories are to be preferred, for example.

Implicit in this view is the distinction between interests that are theoretical and impersonal, and those that reflect the personal commitments that a theoretical account is regarded as intended to transcend. However just because natural scientific theory is not so obviously related to immediate human concerns as educational theory, which might imply practical recommendations, is no reason to suppose that the latter type of theory might not be guided by the same interests as the former type. Nor is there any reason to suppose that the natural scientific interests of simplicity, coherence and so on, do not imply practical recommendations **for the natural scientist** that guide the way that he conducts the professional part of his life.

Instead the distinction between practical and theoretical interests might be more a matter of degree of commensurability with immediate human concerns rather than a difference in kind. For example Hesse argues that in natural science there is an overarching pragmatic criterion that "filters out both simplicity criteria and other value judgements". [11] Hesse is not arguing for a new form of pragmatism; she simply avers that **presently** we can make sense of the idea of increasing predictive success. As she puts it:

> The spaceship still goes whether described in a basically Newtonian or relativistic framework. [12]

This might be taken to mean that both frameworks are useful devices for predicting the movement of spaceships and that the pragmatic criterion can be seen to be applicable to both frameworks despite their radical conceptual differences internally.

> There are notorious difficulties ... that underlie the notions of underdetermined theories and criticisms of the basic observation language. The pragmatic criterion trades these difficulties for others by bypassing the question of the reference of theoretical language, and resting on the non-linguistic concept of successful prediction. [13]

However it is difficult to understand what Hesse means by the idea of a "non-linguistic concept". She does not seem to mean that such a concept is transcendental since she goes on to argue that this concept could in time be replaced. Perhaps she means to suggest that the replacement of the pragmatic criterion would not come about simply as a result of modifications to natural scientific discourse but rather as a result of a complex rearrangement of a variety of forms of discourse including ethics.

For example it could be argued that the enhanced status of the natural sciences results from successful technological applications of them. It could be argued that the explanatory and predictive success of natural scientific theories are of less concern to most people than their technological applications. Just as the traditional practices of building and farming command our attention because of the way that they afford us shelter and food, so too it could be argued that natural science commands our attention because of the way that natural science affords us mains electricity, washing machines and so on.

However events such as those that took place at Chernobyl and Three Mile Island tend to shake our belief in the idea of progress based on the natural science. These events tend to make us reassess the kind of world we want to inhabit and, while the resulting ethical discussion does not directly bear upon the values that guide the natural scientific community, such discussion does have perturbations across a range of forms of discourse and the precise formulation of the pragmatic criterion, that Hesse suggests "filters out" other values, itself shifts. To an extent we may imagine that certain forms of discourse are legitimated by appeals to the claimed pragmatic benefits that are obtained from their application, though this is not a straight-forward appeal to immediate utility. Instead such appeals are mediated by the way in

which they enmesh with other appeals from other forms of discourse, some of which are concerned with speculations about the sort of world that we want to inhabit - in other words, with axiological considerations.

The picture that I am suggesting is one of a developing network of theories whose theory extensions are not only governed by observation statements but also by axiological considerations which, through a process of "filtering" across many forms of discourse, come to function as values that guide various communities of theorists. The proximity of their theoretical concerns with our ethical discussions is a matter of degree but does not give rise to any clear distinction between so-called theoretical and practical interests.

According to this view, there is no reason for theories, in which a particular interest is apparent, to be any less informative and useful than those where personal interest is less apparent. Even minimally articulated, social theories can illuminate aspects of our lives despite the interests of their proponents. The question is, how can such illumination come about? How can an account that is "interested", and in that way 'prejudiced', possibly illuminate **our** choices about what we might do? In order to answer these questions I turn now to Gadamer's account of hermeneutics.

Gadamer's Hermeneutics

Post-empiricist philosophers of science may be thought to have moved the focus of the problem of the theory-laden nature of observation statements back to the problem of the value-laden nature of all theory. In the first case, the idea that the identification of falsifying instances depends upon an overall understanding of the way in which a network of theories fits together seems to be prime. In the second case, the notion of dependence upon a common commitment to certain values on the part of all theorists is a dominant motif.

But both share the pre-conception that our selection or rejection of a particular theory depends upon our having some sort of prior understanding of the "scientific"/theoretic enterprise, that has already in a sense determined our selection or rejection. But it also leads to vicious circularity within scientific discourse.

Hermeneutics, conceived as the study of the problem of the possibility and intelligibility of our attempts to give an interpretation and achieve understanding, contains its own "critical circle" [14] that is supposed to avoid that kind of viciousness. According to Heidegger:

> Any interpretation which is to contribute understanding must already have understood what is to be interpreted. [15]

What Heidegger means is that, in order for us to interpret part of the behaviour of a community, we need to understand the way that the part we are concerned to analyse relates to the overall way that a community lives. The opposite is also true: in order to understand the whole, it is necessary to understand the various constituent parts. To take another example; in order to convince people of the 'correctness' of an interpretation, we need to assume that they understand what is being interpreted in the same way as we do. If they do not, then all we can do is to try to interpret other expressions in the hope that we shall convince them of the suitability or appropriateness of our interpretation. However, at bottom, Taylor points out:

> We cannot escape an ultimate appeal to a common understanding of the expressions, of the 'language' involved. [16]

So if we cannot convince someone else of our 'correct' interpretation, then there may well arise doubt about our own supposedly correct interpretation. The hermeneutic "circle" is therefore 'critical', in the sense that its adoption involves the constant questioning of one's own presuppositions and interpretations.

This apparent circularity is not vicious, however, since it is actually presupposed in **every** act of understanding. Again according to Heidegger:

> if we see this circle as a vicious one and look out for ways of avoiding it, even if we just 'sense' it as an inevitable imperfection, then the act of understanding has been misunderstood from the ground up ... What is decisive is not to get out of the circle but to come to it in the right way. This circle of understanding ... is not to be reduced to the level of a vicious circle, or even of a circle which is merely tolerated. In this circle is hidden a positive possibility of the most primordial kind of knowing. [17]

For Heidegger, the hermeneutical circle has ontological status because the circularity is not only present in the understanding of others but also when we reflect upon what we ourselves do. The hermeneutical circle provides us with a means of attaining a reflective kind of self understanding that is, for Heidegger, an essential part of being human.

Originally hermeneutics was concerned with understanding what was problematic about the meaning of certain religious and historical texts. Schleiermacher [18] and Dilthey, [19] working in accordance with the ideals of the Enlightenment, attempted to transcend the distortions inherent in accounts influenced by an interpreter's own tradition, in the attempt to produce a 'correct' or the 'definitive' interpretation by constant application of a particular 'impersonal' method. Gadamer follows Heidegger in attempting a different project for hermeneutics.

Gadamer is not concerned to find one **method** of interpreting texts which will produce a "once and for all" complete and correct interpretation. Indeed he maintains that this is neither possible nor desirable. According to Gadamer hermeneutics is equally likely to affect the way that an interpreter sees his own immediate participation in a tradition, which itself influences the expectations which are brought to bear on a text, as well as affecting the interpretation of the text itself.

Gadamer calls the effect of tradition "prejudice" (Vorurteil) [20] and seeks to show in considerable detail how the Enlightenment deformed the use of the word 'prejudice' so that it now seems only to function in a pejorative way. Gadamer seeks to reinstate 'prejudice' as an essential part of the process of interpretation. Instead of searching to isolate and then elevate the idea of an a-temporal, bias-free interpretation, Gadamer acknowledges the essential temporality and prejudicial nature of our knowledge. As Linge puts it in the "Introduction" to Gadamer's Philosophical Hermeneutics:

> The role of the past cannot be restricted merely to supplying the texts or events that make up the 'objects' of interpretation'. As prejudice and tradition, the past also defines the ground the interpreter himself occupies when he understands. [21]

By substituting the words "world" and "experiment" for the words "past" and "interpretation" in the above quotation, we could easily read it as a statement of the problem of the theory-ladenness of observation statements. The words "prejudice" and "theory-laden" seem to perform complementary roles. The ease of such a proposed exchange reinforces my earlier point about the natural sciences also involving a hermeneutic dimension.

Since for Gadamer understanding is a temporal event in which a text is mediated by an interpreter's expectations or "horizons" - and these in their turn are themselves mediated by the tradition which led to the original encounter between text and interpreter - interpretation is not something final but is a dynamic part of an ongoing conversation. Instead of there being one final interpretation or reconstruction, understanding consists of a series of mediations or "fusing of horizons" [22] between interpreter and text. For Gadamer, interpretation, theorising and application are all present in the moment of interpretation. The concept of understanding as a 'fusion of horizons' indicates that the horizons of the interpreter as well as the text change in the activity of seeking and coming to understanding; thus the

interpreter's present situation is fluid, prejudices are continuously being discarded and reformed as a result of the understandings that we are constantly achieving, and reconstructing. This puts an end to empiricist notions of what claims to be "disinterested" educational research leading to theories that are applied in concrete practical situations.

The notion of a 'fusion of horizons' also puts an end to what I earlier called the professionalisation of educational theory, that is to say, the process whereby educational theorists are assumed to be guardians of educational rationality (and as a result both claim and are offered enhanced institutional status including the right to the tutelage of teacher trainees). The present move to what is called "the primacy of practice", that often results in the promotion of the notions of action research and action learning, may be seen to arise out of Gadamer's hermeneutics. On this basis we might claim that learning gets its moment of application in actual practice; for this reason we might think that so-called educational theorists should converse with so-called educational practitioners in order to enhance mutual understanding.

However Gadamer's hermeneutics involves a more radical shift than this. It is not just that theory should be more related to practice or that theorists and practitioners should understand each other better: it is that **there is no such thing** as theory that is not itself a form of practice nor are there theorists who are not themselves practitioners or vice-versa. Crucially for Gadamer's hermeneutics it makes no sense to imagine that there are theories **to be had** which guide practice. The radical thrust of Gadamer's hermeneutics applied to education today is to deny much of the present institutionalisation of the 'theory guiding practice idea', whether that be in Colleges and Departments of Education or Colleges of Further Education providing the vocational theory that is supposed to guide vocational practice.

The idea that rational practice only results from successful theoretical deliberation must be rejected in favour of a view of practice that incorporates the constant mediation between talk about what to do next and action in the appropriate practical context. For example the idea of a vocational preparation and the present thrust towards vocationalism needs to be rejected in favour of a system in which people learn how to do certain things on the job, as it were.

If there are simply not enough jobs to go around, that is a problem but **it is not an educational problem.** One of the implications of Gadamer's hermeneutics is that our educational tradition should make us regard it as insufficient for the education system to be conceived primarily as the "preparation" of people for an economic role in society and to be held primarily responsible for a society's failure to achieve its economic targets. In a situation in which educational resources are likely to remain in short supply, it may be preferable to cease to support those parts of the public educational system that are held to be responsible for providing an exclusively vocational education and this would mean, for example much further education and M.S.C. provision like the Y.T.S. etc., - and to move resources in the direction of the nursery, primary and secondary sectors whose aims might be more widely conceived than merely having a narrow emphasis on vocationalism. It is much more reasonable to maintain, as M. Warnock [23] has argued, that education should be concerned **both** with a preparation for working life generally **and** with learning something about the ways in which different groups of people choose to live. No-one totally shapes the society of which they are a part, any more than any one totally fits into it like a piece in a jigsaw puzzle.

The crucial educational implication of Gadamer's hermeneutics is that it challenges head-on the empiricist notion of a tabula rasa. Instead it underlines

the "prejudicial" nature of all knowledge and the ways in which our cognitive prejudices are transformed through a continuous encounter with other prejudices. There may be no final rule or principle that governs the ways that our prejudices develop nor may there be any "bits" of knowledge waiting to fill up any gaps in our conceptual scheme. Further Gadamer enables and encourages us to account for the role that tradition plays in understanding and to criticise the idea that education is simply about transferring knowledge. The point is that knowledge is not a static piece of equipment or commodity just waiting to be "slotted in" to some part of our cognitive apparatus where there is felt to be a conceptual deficiency, any more than an educand is a static commodity just waiting to be slotted into an economic deficiency. Instead to come to know something is to have engaged in conversations in which one's prejudices have been transformed; as a result of such encounters and engagements one both acts and speaks differently.

Gadamer's notion of the mediation between text and interpreter can be seen as a dialogue involving equality and active reciprocity with 'prejudice' on both sides being discarded, as in a conversation between learners and teacher. Just as with a text that is interpreted, so a conversation is about something to which contributors direct their attention. The contributors do not, according to Gadamer, concentrate on each other's personality; rather they attempt to make each other's attempts at communication their own. It is imagination that enables the contributors to see what is questionable in the subjects of their conversation and to go beyond their original horizons in a process of enquiry that, whilst continuing the hermeneutic circle, has in a very real sense a life of its own. [24]

Gadamer suggests that the phenomenology of the game may be a useful way of viewing a dialogue. Playing a game involves a wholehearted commitment to the

to-ing and fro-ing of the game. It involves taking a risk that frees the participants from their subjectivity and from the technicalities of the game. Similarly the contributors to a conversation do not already **possess** the language they use in any perfect or final sense. The selection of a word appropriate in any phase of the conversation is not made according to pre-given rules which the speaker **possesses.** Rather the meaning of the word is situation-dependent. The selection of a word is an act that in itself involves an infinity of possibilities which intrigue the participants into investigating ever new language situations.

Whereas for Winch learning new language-games involves 'socialisation' into those games, and whereas for the empiricist learning involves the acquisition of knowledge in preparation for playing language-games, for Gadamer, our initial language game learning provides the basis for altering and fusing those games with other games. If we imagine language as consisting in an ever changing and expanding map of overlapping language-games, then, while Winch seems to assume that we move to different parts of the map by a series of different socialisations and the empiricist seems to assume that knowledge provides an overall blueprint for action, in Gadamer's view we move through the map by a series of encounters which take the form of translations in conversation.

A difficulty for Winch's case is that we can understand all sorts of things as a result of a conversation without actually having ever played its language games themselves. Winch gives his 'limiting notions' considerable work to do in accounting for our being able to understand something of another person's life without our actually being part of the same community. For Gadamer by contrast a statement is seen as a response to a question and every question is prompted by a further question to which it is an answer. This is what Gadamer

means when he writes about the attempt to make each other's attempts at communication one's own:

> When one enters into dialogue with another person and then is carried along further by the dialogue, it is no longer the will of the individual person, holding itself back or exposing itself, that is determinative. Rather the law of the subject-matter is at issue in the dialogue and that elicits statements and counterstatements and in the end plays them into each other. [25]

Gadamer's insistence on the importance of prejudice and his refusal to establish demarcation criteria for **good** 'prejudices' may be seen by some theorists of the objectivist persuasion to lead to relativism. After all, it might be argued, if learning is supposed to involve learners in conversation, how are they supposed to know what is right? We may respond that learners are not prisoners within their prejudicial frameworks which they have adopted by uncritical adherence to some authority, whether that authority is the authority of tradition as presented in textbooks and so on or the supposed authority of someone in power, like that of a teacher. Instead learners are constantly modifying their prejudicial frameworks with every hermeneutic encounter, not just those that take place while at school. The more that learners risk their prejudices, the more likely it is that their frameworks will change.

Even given the provisional nature of our adherence to authority - and despite the fact that our acceptance of authority may become associated in some minds with obedience to persons in positions of power - Gadamer still seeks to rid the notion of authority of what he considers to be its post-Enlightenment pejorative overtones. For Gadamer the distinction between faith in authority and the use of reason has led some people to an erroneous belief that there is a distinction and a choice between **either** authority **or** reason; but just as authority is a source of prejudice so too is it a source of truth. Authority is a recognition of superior knowledge. While

> it is true that it is persons that have authority ... the authority of persons is based ultimately not on the subjection and abdication of reason, but on recognition of knowledge - knowledge, namely, that the other is superior to oneself in judgement and insight and for this reason his judgement takes precedence. [26]

The validity of our claims to knowledge demands that one should give cognitive respect to the person in authority but their authority may be validated by other impersonal means, that is, by grounds based on reason. The recognition of authority in discourse serves as a device further to enable understanding. It is not as if every problematicised knowledge claim **has** to be discursively validated; it can simply be accepted on the strength of the authority. Nor is it that a person is accepted as an authority across all fields of discourse; it is simply that authority, like prejudice, can be enabling.

This reinforces my earlier point about the interest-relativity of forms of explanation. [27] Sometimes an appeal to authority is all that is required to explain or justify a course of action but these appeals can only be effective if personal authority is recognised and not imposed. Such a recognition has implications both for the role of the teacher and for the role of the manager. Most teachers are well aware that their effectiveness depends upon their students having a respect for their authority and that might be why they may take great care in preparing the first few encounters with a class in order to establish the authority that they hope will sustain them through any subsequent mistakes they might make. I suggest that the talk of establishing good relationships in the classroom is a way of referring to problems to be solved on the way to securing recognition of the teacher's authority.

The writers of "distance learning" materials are faced with the problem of establishing a respect for the authority of their writing without any personal contact with their readers. Of course some writers are capable of achieving

this easily. However it remains to be seen how many teachers can turn their hand successfully to this type of instruction, and authority relationship, if the move to distance learning and modular instruction were to continue to gain momentum, pushed along as it might be by the effect of economic considerations.

There is a further educational implication of Gadamer's discussion of the nature of authority. This is the one concerned with the authority of those who are paid to manage teachers in accordance with the kind of promotion structure that was discussed earlier in connection with the Main report. [28] For Gadamer authority can only be recognised and not imposed - and that means recognised by those whose actions are in some sense circumscribed by the authority. In other words, instead of having a promotion procedure that is "top-down", in the sense that someone is appointed by people who occupy positions above the applicant in the promotion structure, on Gadamer's view it is people "below" these higher managerial levels who should have a much greater say in promotion procedures based on the authority that they recognise. [29]

It seems obvious that some centralisation of decision-making in education is both inevitable and necessary. However just because someone's authority is recognised over a period of time is no reason to suppose that they will remain in authority for ever nor that their authority is based on any thing other than the respect of their colleagues. Instead there would be much to be said in favour of fixed-term appointments, the termination of which would not be seen as a consequence of some sort of failure on the part of the incumbent but rather as a normal part of the way in which a community of educational practitioners goes about its business - a kind of institutionalised dynamism of authority transference and easement of change.

Much of the strong feeling that has recently been directed against proposals to strengthen the management of educational institutions [30] may be seen to have resulted from teachers perceiving an asymmetry between their own struggle to establish their authority with their students and the apparent lack of question with which they are supposed to accept the authority of others. There may be a mismatch between the democracy of the classroom and a management structure that is perceived to be anti-democratic and this may be compounded by the difficulty of recognising those people who are likely to command respect from their colleagues over a period of time. In this respect teachers are in a very difficult position for not only do bad appointments often lead to bad decisions that may set up inadequate organisation and so make it even more difficult for teachers to establish their own authority, but teachers might be unable to do much about ameliorating such procedures other than continuing to do those things that might enable them to gain promotion, the gaining of which might not necessarily improve the authority they can hope to command from other unpromoted teachers.

Gadamer suggests an explanation as to how this problem might have arisen. His suggestion depends upon the reinstatement of two other pre-Enlightenment notions: phronesis which is wisdom as to conduct and praxis which is practical knowledge of how to live. [31] According to Gadamer praxis has become deformed into techne which is merely a skill or technique that can be learned and forgotten. He argues that, by risking our own post-Enlightenment prejudices, we come to see how the notion of practical knowledge has become equated with the **means** part of instrumental rationality. Just as we have come to view application as a subsequent part of phronesis in which we relate a pre-given universal to a particular, so too we have come to view praxis as a subsequent part of episteme in which we uncritically apply a scientific maxim to a technical situation.

Instead, Gadamer maintains, both praxis and techne proceed in a dialectical relationship. This involves a constant mediation between knowledge and application; yet praxis involves the notion of some 'good' end - it is teleological. While praxis has the dimension of a science in that it deals with some regularities, it is only achieved in its application. The characteristics of praxis also hold true for hermeneutics. By reflecting upon the possibilities of interpretation and understanding, understanding itself is enhanced. Gadamer draws the analogy as follows:

> understanding, like action always remains a risk and never leaves room for the simple application of a general knowledge ... understanding (like action) means a growth in inner awareness of future possibilities. [32]

Gadamer's hermeneutics involves a mediation of past and future horizons that is rooted in the experiences we have in the world. Hence hermeneutics is practical philosophy and its chief task is to

> correct the peculiar falsehood of modern consciousness: the idolatry of scientific method and of the anonymous authority of the sciences and it vindicates again the noblest task of the citizen - decision-making according to one's own responsibility - instead of conceding that task to the expert. [33]

It follows from any acceptance of Gadamer's account by educators that debate about what to do in educational institutions must become a much more open process in which the notion of different groups of practitioners being circumscribed by different sorts of objectives is rejected in favour of the notion that the forms of discourse typical in education involve both evaluative and descriptive components and that these evolve according to the ways in which those forms of discourse interact. Since the Enlightenment, however, the 'theory guiding practice' idea has become so pervasive that some imagine that all practices are guided by our pre-existing epistemic and/or axiologic concerns and that all practice needs to be "managed" similarly in the light of them. If we follow Gadamer we may give up not only this supposed distinction between normative and empirical theory but also those distinctions purported

to subsist between theoretical and practical knowledge and between manager and teacher. Instead we have a different starting point: theory and practice are fused within linguistic practices, that are themselves constantly being transformed. The only problem is that Gadamer does not suggest how one transformation is to be preferred to another; but he does not seem to see this as a problem, being content merely to argue that the pre-Enlightenment uses of certain terms are to be preferred. The nearest that he gets to a clarification and solution of this issue is to be found in his account of how it is that we judge works of art.

For Gadamer, in so far as our attention is engaged **by** a work of art, there is an interaction between spectator and work that is essential to the completeness of the work. It may be objected that if there is no one meaning or correct interpretation of a work of art and if art appreciation involves an individual encounter between person and work of art, then it looks as if we are caught up in a sophisticated form of evaluative relativism. However Gadamer avoids this conclusion by drawing an analogy between the performance of a piece of music and our appreciating the plastic arts.

In order to perform a piece of music the performers must understand and interpret the score; similarly a sculpture needs to be interpreted. Now we often have no difficulty in judging good or bad performances, so why, asks Gadamer rhetorically, should we have any difficulty with judging works of art in general? If we are inclined to the view that objective judgement always involves an infallible algorithm or universal acclaim, then we shall be disappointed with Gadamer's explanation. However this disappointment can be avoided if we recognise that understanding

> is part of the process of the coming into being of meaning, in which the significance of all statements - those of art and those of everything else that has been transmitted - is formal and made complete. [34]

For the objectivist however, this move is not acceptable. The problem is that Gadamer seems to take language itself as "the given" and to rely on a form of 'decisionism' as the ultimate arbiter of linguistic practice transformation. That is to say, ultimately we just act, decide or prefer some transformations as opposed to others, and we go as far as we can in justifying those preferences - the content of our justifications depending upon the context in which a justification is required. Gadamer does not seem to take account of the fact that power relations often operate in such a way as to deform language and hence deform the ways in which linguistic practices are transformed. This is the main criticism that Habermas directs against Gadamer. I discuss this criticism and some other aspects of Habermas's work in the next chapter.

Gadamer seems to be aware that linguistic practices can easily degenerate into manipulative cleverness without a living shared acceptance of ethical principles and norms. [35] But as Bernstein points out;

> we are [presently] in a state of great confusion and uncertainty ... about what norms or "universals" ought to govern our practical lives. Gadamer [does not] confront a crucial question - the question of what material, social and political conditions need to be concretely realised in order to encourage the flourishing of phronesis in all citizens? [36]

In one sense, Gadamer confronts this question by accounting for the way that reason functions within tradition: within tradition prejudices are actually enabling. "Prejudices" can be seen as a way of linking the theoretical with the practical. For if we cannot understand something the answer may be to change ourselves. Wittgenstein's advice may be apposite.

> The way to solve the problem you see in life is to live in a way that will make what is problematic disappear. [37]

———oOo———

NOTES AND REFERENCES

1 Winch P. The Idea of a Social Science 1958.
2 Giddens A. New Rules of Sociological Method 1976, p 158.
3 Winch P. "Understanding a Primitive Society" 1964, reprinted in Wilson B.R. 1970 and Winch P. Ethics and Action 1972, pp 8-49. p 43 in that collection.
4 See my discussion of Wittgenstein's later philosophy and of the criticism that Gellner directs against it in my chapter 1.
5 Gellner E. Spectacles and Predicaments 1979, pp 65-102.
6 Louch A.R. Explanation and Human Action 1966.
7 Giddens A. 1976, p 162.
8 Hesse M. Revolutions and Reconstructions in the Philosophy of Science 1980, p 173.
9 Giddens A. 1976, p 162.
10 Ibid..
11 Hesse M. 1980, p 190.
12 Ibid., p 192.
13 Ibid., p 193.
14 Heidegger M. Being and Time 1962, p 194.
15 Ibid..
16 Taylor C. Philosophical Papers 1985, vol. 2, p 17.
17 Heidegger M. 1962, pp 194-195.
18 cf. Schleiermacher F. Hermeneutics: the handwritten manuscripts ed. Kimmerle H. Scholars Press, Missoula, Montana, 1977.
19 cf. Dilthey W. Selected Writings ed. Rickman H.P. Cambridge, 1976,
20 Gadamer H.G. Truth and Method 1975a, p 240.
21 Linge H.E. "Introduction" to Gadamer H.G. Philosophical Hermeneutics 1976, p xv.
22 Gadamer H.G. 1975a, p 273.
23 Warnock M. Education: A Way Ahead 1979, ch 2.
24 For a further development of this idea see the work of L.A. Reid, especially his Meaning and the Arts Allen and Unwin, 1969, and more recently his Ways of Understanding and Education Heinemann, 1986. See also Greger S. "Aesthetic Meaning" Journal of Philosophy of Education 6:2 1972.
25 Gadamer H.G. 1975a, p 347.
26 Ibid., p 248.
27 See Garfinkel A. Forms of Explanation 1981, for a development of this point.
28 Report into the Pay and Conditions of Service of School Teachers in Scotland, chairman Sir Peter Main, presented to Parliament by the Secretary of State for Scotland, Oct. 1986, Cmnd. 9893, HMSO, Edinburgh.
29 I gather that such promotion procedures are becoming increasingly popular within industrial organisations. However I am not aware of any **formally recognised** procedures of this type within educational organisations.
30 See, for example, the letters column of the Glasgow Herald immediately following the publication of the "Main Report" referred to above.
31 Gadamer H.G. Reason in the Age of Science 1981, p 89.
32 Ibid., p 109.
33 Gadamer H.G. "Hermeneutics and Social Science" 1975b, p 316.
34 Gadamer H.G. 1975a, p 146
35 see Gadamer H.G. 1975a, p 289.
36 Bernstein R.J. Beyond Objectivism and Relativism 1983, p 157.
37 Wittgenstein L. Culture and Value 1980, p 27.

CHAPTER 7

CRITICAL THEORY

We have seen that the idea of continuous discursive critique lies at the heart of Gadamer's hermeneutics. However Gadamer's thesis rules out the possibility of our going beyond a 'fusion of horizons' in the attempt to frame a critique of social institutions that might serve to check or even render otiose the sort of unconstrained discourse required by a purely hermeneutic account of social theory. Habermas has taken issue with this and other aspects of Gadamer's hermeneutics and is now working out a view of social theory that aims to deepen the meaning of 'critical' embodied in the hermeneutic ideal of "critical self understanding". There is much in common however between the work of Gadamer and Habermas and their differences have served not only to publicise their work but also have given rise to a long-running debate. In this chapter I give an account of this debate, together with an appraisal of Habermas's philosophy and some of the theoretical underpinnings of a tradition of educational action research that claims to be derived from it. I conclude with an attempt to show that Habermas's consensus theory of truth may serve as a regulative ideal to which all theorists aspire. This attempt enables me to begin to answer the question posed in chapter 1 regarding the purpose of educational theory.

Habermas's work may be divided, broadly speaking, into two phases. The first resulted in the publication of his Knowledge and Human Interests. The second is concerned with the working out of The Theory of Communicative Action. [2] However a dominant theme running throughout both phases of his work concerns the inadequacy of those approaches to institutional organisation that he calls "scientistic", [3] in the sense that empirical science is considered to be co-extensive with knowledge of persons and society.

Habermas's critique of 'Scientism'

In Knowledge and Human Interests Habermas attempts to show that there are **three** categories of knowledge guided by three separate interests. The generation of technically exploitable knowledge is the interest that guides the empirical/analytic sciences. Even though Habermas wrote Knowledge and Human Interests without the benefit of the insights of post-empiricist philosophy of science, he realised that the activity of the empirical/analytic sciences presupposes an investigating community that sustains itself through communicative action which cannot be reduced to instrumental action. Hence Habermas proposes a second category of knowledge: the historical hermeneutic sciences are governed by a practical interest in maintaining reliable intersubjectivity of understanding.

In the second phase of Habermas's work these categories of knowledge are broadened into the categories of "system" and "lifeworld". "Systems rationality" is means-ends rationality with systems theory taking on the role of determining efficiency of means, while "lifeworld rationality" has the aim of maintaining understanding. According to Habermas:

> Subjects acting communicatively always come to an understanding in the horizon of a lifeworld. Their lifeworld is formed from more or less diffuse, always unproblematic, background convictions. ... The lifeworld also stores the interpretive work of previous generations. It is the conservative counterweight to the risk of disagreement that arises with every actual process of reaching understanding; for communicative actors can achieve an understanding only by way of taking yes/no positions on criticisable validity claims.[4]

Habermas diagnoses one of the problems of modern times as the increasing "colonisation of the lifeworld" by systematic rationalisation processes. This diagnosis is another way of saying, like Gadamer, that since the times of the Enlightenment there has been a growing conflation of the practical with the technical. As a result, the administration of society has become increasingly scientistic with the result that:

> no attempt at all is made to attain a rational consensus on the part of citizens concerned with the practical control of their destiny. Its place is taken by the attempt to attain technical control of history by perfecting the administration of society, an attempt that is just as impractical as it is unhistorical. [5]

Habermas concludes:

> the empirical, analytical sciences produce technical recommendation, but they furnish no answers to practical questions. [6]

Gadamer would agree with this conclusion. However as Giddens notes in criticism of Gadamer, there is

> a necessity - of analysing social conduct in terms which go beyond those of actors situated in particular traditions, [7]

Habermas seeks to rectify this alleged deficiency by proposing a third category of knowledge which he calls "critical theory" that is guided by an emancipatory interest in freeing practitioners from the ideological constraints that their language places on them. Critical theory also serves as a way of systematically reflecting upon both empirical and hermeneutic theory in order to mediate between the two. (though that presupposes they are still distinct) Therefore the meaning of 'critical' takes on an additional dimension to the one employed by Gadamer. Not only does 'critical' imply the sort of continuous self-understanding implied by the hermeneutical circle nor is it sufficient, Habermas believes, to "reinstate" previously held notions like praxis. Instead Habermas wants a "depth hermeneutics" [8] to transcend the actor's conversation and to re-orient the power relations that distort the language that conversational partners use. For Habermas,

> Language is **also** a medium of domination and social force ... Language is **also** ideological. [9] (original emphasis)

Habermas looks to psychoanalysis to provide the model for the systematic reflection on language required by critical theory. As in psychoanalysis, where repressed motives and private needs can be reconstructed and brought out into

the open in order to present a coherent narrative, which can be verified by the patient and which can result in the elimination of the distortions which the repressed motives and privatised needs have caused, so too critical theory seeks to reconstruct and bring into the open the events that take place and the process by which our ideology becomes distorted and to present a coherent narrative which results in the elimination of the distortions of which our language makes us bearers. In some ways psychoanalytic constructions are like hermeneutic accounts, in that interpretation must take the form of a translation into the lifeworld of the patient; but in other ways psychoanalytic constructions function as causal hypotheses, which can be corroborated only by the continuation of the patient's self-formation. That is to say, the patient's acceptance or denial of the construction is not sufficient in itself as decisive confirmation or falsification of the psychological construction.

There are however difficulties with the psychoanalytic/critical theory analogy. As Habermas himself points out, a precondition of the success of psychoanalysis is the patient's own desire to be helped, whereas critical theory is meant to reach people precisely because their distortions make them unable to see that they are suffering and need help. Furthermore psychoanalysis sometimes involves temporarily prolonging a patient's suffering. It is hard to see how a critical theorist could prolong the suffering of some social group without having an institutionalised power to do so!

So Habermas maintains that free open communication, which is the aim of the hermeneutic sciences, and material necessities, which are the products of the empirical/analytic sciences, need to be supplemented by a reorientation of power relationships, that will be brought about by the emancipating interest of critical theory. It is because critical reflection undermines the dogmatic character of both a world and a form of life that knowing and acting are

fused. However "the emancipating interest in knowledge has a derivative status" [10] and this is supposed to result in practical engagement. But it is not clear how Habermas relates the idea of reflection to that of practical engagement. It seems as if Habermas's notion of critical theory, which seeks to unite theory and practice, might only serve to split the two into either reflection or reconstruction. In this connection it is interesting to recall Habermas's accusation that Gadamer absolutises language and tradition.

> A structure of prejudices that has been rendered transparent can no longer function as a prejudice. But this is precisely what Gadamer seeks to imply. ... Gadamer's prejudice for the rights of prejudice certified by tradition denies the power of reflection ... language is a metainstitution on which all social institutions are dependent ... Hermeneutic experience ... changes into the critique of ideology. [11]

In his reply Gadamer [12] points out that criticism is necessarily partial and is itself made on the basis of taken-for-granted-presuppositions. Reflection is no less historically-situated and context-dependent than other modes of thought. Furthermore Gadamer rejects the view that language is one dimension of social life among others that has to be explained within a more comprehensive framework that includes labour and power. For Gadamer labour and power are part of the same form of life that presupposes a linguistic community. "Nothing is excepted from this community, no experience of the world whatever." [13] Thus economic, material and social factors are themselves linguistically mediated and the attempt by Habermas to set aside critique of ideology apart from the hermeneutic circle is impossible.

Similarly Gadamer does not want to absolutise hermeneutics into a denial of the necessity of empirical science.

> Nobody would deny that practical application of modern science has fundamentally altered our world, and therewith also our language. [14]

But the point is that our language also changes. That does not mean "that the linguistically articulated consciousness claims to determine all the material

being of life-practice". [15] It does mean though that reality "comes about" and is only perceived, articulated and appraised within language. Even though the language games of science seem rarefied, they must "remain related to the metalanguage presented in the mother tongue". [16] This takes us back to the importance of hermeneutics in helping us to understand the language games of science, not in isolation but against a background of connections with other aspects of our form of life.

For Gadamer hermeneutic reflection on the presuppositions and limits of science is essential to our ability to avoid the methodical alienation which has resulted in the deformation of praxis in favour of a functionalism that directs, from the 'outside', the life of each individual and community. It is not that Gadamer seeks to reify tradition; rather, he believes, it is through encounters with tradition that ideological distortion can be recognised.

Habermas's appropriation of psychoanalysis as an analogy seems to rest on the assumption that the analyst has some special insight not accessible to the analysee, whereas Gadamer considers that the critic of ideology assumes a superiority for his insight that he cannot justify:

> the very ideal of reason forbids any one to claim for himself the correct insight into another's delusion. [17]

For Gadamer, the analogy between psychoanalytical and sociological theory breaks down because of the impossibility of distinguishing between professional and communal relationships.

> Where does the patient-relationship end and the social partnership in its unprofessional right begin? Most fundamentally: over against what self-interpretation of the social consciousness (and all morality is such) is it in place not to enquire **behind** that consciousness - and when is it not? [18] (original emphasis)

The point is that normally the unconscious **is** the object of our hermeneutic concern and, while the unconscious can be and is probed in hermeneutic

encounters and while the power of reflection seems critically to examine our unconscious presuppositions, that is no reason to suppose that an analyst has any 'correct' or 'final' or unique insight into our individual consciousness or, as Habermas seems to suppose, our 'collective' conscious appropriation of forms of language that serve to conceal our 'true' or 'real' interests. It is not just when we see through pretexts or false pretences that we can be said to understand. Nor can we be said to understand only when we act in an enlightened way.

Habermas attempts to answer these criticisms in his Theory of Communicative Competence. [19] In this he attempts to give a rational reconstruction of the universal conditions of reason. The theory is outlined below: communicative action, which includes speech as well as non-verbal communication, requires a background consensus that meets four claims: utterances must be intelligible, the propositional content true, the performative component correct, and the acting subject sincere. Whilst the satisfaction of each of these conditions can be problematic, they can be redeemed in "discourse".

> In discourse, the 'force' of the argument is the only permissible compulsion ... discourses do not compel their participants to act ... discourses produce nothing but arguments [20]

The aim of discourse is to distinguish the challenged consensus from a rational consensus, one that is attained when argument alone prevails. This distinction does not appear to help us distinguish between distorted and undistorted communication, since action and discourse are inevitably interwoven. However Habermas supposes that

> the design of an ideal speech situation is necessarily implied in the structure of political speech, since all speech, even intentional deception is oriented towards the idea of truth. This idea can only be analysed with regard to a consensus achieved in unrestrained and universal discourse. [21]

Habermas aims to show that implicit in speech is the normative foundation of what discourse requires - that is, genuine symmetry between and among speech-partners, where no form of domination exists and argument alone prevails. In this respect Habermas seems to accept that the ideal speech situation exists as a counterfactual only. That is to say, Habermas does not suppose that such situations could ever be realised. Nevertheless he argues that we may always imagine the situation in which a group of people discuss what they should do with no concern other than that of coming to an agreement on the basis of **argument** alone and not on the basis of coercion, manipulative cleverness or personal preference. Consequently he argues that we may always answer the question:

> How would the members of a social system, at a given stage in the development of productive forces have collectively and bindingly interpreted their needs ... if they could and would have decided on the organisation of social intercourse through discursive will-formation. [22]

Our answer to this question enables us to **select** one interpretation of a social development in preference to others for the **correct** interpretation is the one given in our answer. The normative foundation of critical theory rests on the possibility that the ideal speech situation is inherent in the structure of social action which critical theory seeks to analyse. Hence anyone who participates in rational discourse cannot argue that non-discursive standards of rationality are just as good as their own. As McCarthy points out in connection with Winch, "at most Winch could silently join the Azande and become as they are". [23] However this argument does not show that discursive rationality is universal. To show this Habermas has to attempt to show that the ability to reason argumentatively and reflectively about truth is a species-wide competence.

Habermas hopes to fulfil this task by drawing on the developmental theories of Kohlberg, Piaget and Chomsky, in order to elucidate the logic of different

types of discourse and elicit a system of formal qualifications which all competent speakers must possess. Such an elucidation should provide him with explicit theoretical knowledge (knowing that) of implicit pre-theoretical practical knowledge (knowing how) through what he calls a "reconstructive science". [24] A "reconstructive science" is an attempt to provide the foundations of the emancipatory critique presupposed by his previous work. The "pay-off", as Bernstein puts it, of having such foundations is that we can avoid the continued deformation of the lifeworld by systemic considerations. As Bernstein goes on:

> we can explain why there has been a colonisation of the lifeworld ... We can not only explain, but also diagnose the "pathologies of modernity." ... We can even approach the study of new social movements from this communicative-theoretical perspective: movements such as the ecological, antinuclear, women's, and liberation movements ... They can be seen (even when misguided) as defensive reactions to preserve the integrity of the communicative structures of the life-world against the impingements and distortions imposed upon it by the processes of systemic rationalisation. [25]

However we can do all this using other notions such as that of the deformation of praxis by techne. The contention that the "reconstructive sciences" are empirical is little help since the recognition of falsifications is dependent upon the interpretations which a community chooses to make. In this connection, we may ask what advantages Habermas's theory offers us. While Habermas appropriates much of the hermeneutic insight, his attempt to justify that insight with the results of an empirical study leads him straight back to the problems of accounting for the superiority of the particular community that he charges with the responsibility for validating these "reconstructive sciences".

The Move to Practice

We have already noted part of the so-called "move to practice" within philosophy of education when we examined "materialist pragmatism" in chapter 4. Let us now examine another part of this "move" to which Habermas's work may be seen to contribute and which culminates in the notion of educational action research. For some time many philosophers of education have doubted the profitability of elucidating the nature of educational theory. Lloyd for example would like to

> encourage a little scepticism towards the view that we need a theory of education, [26]

Instead he suggests that

> thinking whilst being engaged in teaching is more likely to be beneficial. [27]

However it is not difficult to see that Lloyd's suggestion confuses two senses of theory. No one would deny that thinking about teaching is likely to be beneficial but to imagine that teachers thinking about teaching is a substitute for having some idea of the way that all the contributions to the educational enterprise might cohere and give direction to the enterprise is absurd. Lloyd is so concerned to refute the notion that educational theory is a particular blend of psychology, sociology and philosophy, as it was until relatively recently administered in some Colleges and Departments of Education, that he elevates excessively the primacy of what he calls "reflection on experience". [28]

John Wilson too is among those who doubt the need for any extended account of educational theory. By 1975 there had been an adverse reaction to what I earlier referred to as the "immersing teachers in theory" account of educational theory and Wilson's Educational Theory and the Preparation of Teachers [29] cast doubts on the benefits of theory and indeed on the question of whether educational theory existed at all. Recently in a review entitled "Do

we need educational theory?" [30], Wilson suggests that: "anything properly called 'educational theory' is a non-starter". [31]

A more modest, and philosophically more convincing move to assert the primacy of practice has been made by Pring. He suggests that it is misleading to look at questions like

> In what sense can practical decisions be based on empirical evidence and value judgements? ... Instead [he claims] a more useful approach would be through an analysis of action and the conceptual connection between action and thought. [32]

and goes on to argue

> that educational practice embraces an indefinite range of activities, but that the characterisation of any one activity requires reference to the intention and thereby to the thought of the agent, and thus to a conceptual framework that might or might not be called theory depending on its level of reflection and articulation. To attempt to think of practice apart from theory is to create an unreal dualism. [33]

In other words theory and practice are coextensive and the justification for practice depends upon reference to the theory or conceptual framework within which the practice is to be identified. According to this argument intelligent practice involves "some logical analysis of the theoretical framework within which one is acting." [34] Philosophy is presumed by Pring to be concerned with this logical analysis, and so as a result of philosophy

> one sees one's intention's differently or, rather, that one has different intentions. One has as it were, remapped the geography of the area in which one is acting. [35]

W. Carr [36] takes up Pring's account of theory and suggests that, while in general theory guides practice, only **appropriate** theory guides educational practice. For Carr there is a gap between theory and practice in education when it is assumed that the theoretical practices of psychology, sociology and other disciplines guide educational practice, whereas he supposes, it is the theories or conceptual schemes of **practitioners** that guide their practice "rather than the theory guiding any theoretical practice." [37]

Carr is correct to denigrate the idea that educational practice is parasitic upon the "disciplines". However to equate theory with the beliefs, values and assumptions implicit in the theoretical framework acquired by practitioners through precedent, habit and tradition is one thing, to equate theory with the **emancipation** of practitioners from their dependence on such a theoretical framework [38] is quite another. Having got a purchase on the notion of theory by linking it with the notion of a 'conceptual scheme', Carr develops his ideas further by linking theorising with the 'action research' tradition by appropriating much of Habermas's work.

Action Research

In Educational Research: The State of the Art [39] J. Nisbet attempted to review the present state of educational research in Britain. He distinguishes three "traditions" in educational research. First he refers to the familiar empiricist tradition of educational research which as I earlier argued is still the dominant tradition, whether in the form of experiment, exploratory survey or curriculum development. However, as Nisbet points out, educational researchers have not been insensitive to the "protest against the scientific detachment of traditional psychological and psychometric studies" [40] and as a result a second tradition - that of the interpretive, open-ended inquiry - has been adopted by some researchers. According to this tradition:

> Grounded theory is built up from observation, not imposed a priori. ... theory is grounded in the everyday life of the people who are being studied. [41]

Consequently the researcher must become involved with and be accepted by the community being studied. However the extent to which a researcher can become a full participant in a community being researched, when his introduction into and departure from that community are planned in advance, is a highly contentious issue, particularly when the intention behind his involvement is unconnected with the common concerns of the community.

The third tradition of 'action research' brings research and innovation together, so that practice becomes the beginning and end of research. Klafki [42] characterises 'action research' as follows:

(1) it is educational practice that is the starting point for the problems the action research attempts to solve.

(2) Educational action research takes place in direct cooperation with the educational practice that the research seeks to serve. Research and practice develop coextensively so that the nature of the research problem evolves as research and practice proceed.

(3) The distinction between researcher and practitioner is dissolved in an action research project. All participants have equal access to the decision-making arena and the "discourse" [43] that ensues may itself be the major product of the research.

It is not clear however how if at all 'action research' differs from what we have traditionally understood as development work. [44] Nor is it clear how some forms of traditional empirical research differ from 'action research' except that, as it has been traditionally conceived, educational research precedes theory precedes action, whereas all three in an 'action research' project are mutually interacting. A further difficulty for 'action researchers' is the extent to which practitioners and researchers can engage in the sort of equal partnership and "liberation from compulsion to act" that is supposed to characterise such a "discourse". [45] Finally, as Nisbet remarks,

> The tension exists between the two concepts, action and research: action has all the popular qualities - commitment, involvement, belief, enthusiasm; the qualities needed for research have a more limited appeal - detachment, suspension of belief, scepticism. [46]

Despite these difficulties Carr and Kemmis [47] have recently attempted to promote 'action research', as a development of Carr's earlier work which

suggested that educational theorising might be concerned with the emancipation of practitioners from habit and custom. Carr and Kemmis consider that educational problems arise because educational practice is in various ways often inadequate to its purposes:

> They arise, in other words when there is some discrepancy between an educational practice and the expectation in terms of which the practice was undertaken. [48]

They argue that practitioners have a "theoretical framework" that explains and guides their practices and that educational problems arise as a result of the operation of inadequate frameworks. Since they conceive 'theory' as the pragmatic response to educational problems then they assert that it is the practitioners' own frameworks that need to be investigated by the practitioners themselves - and for Carr and Kemmis, that means that **teachers** need critically to appraise their own practice. Carr and Kemmis therefore reject the scientific conception of educational research as "not really concerned with educational problems at all." [49] Additionally the interpretive approach:

> ... by refusing to recognise any evaluative criteria for assessing teachers' own interpretations and by failing to provide alternative explanations against which their existing interpretations can be judged, an interpretive approach to educational research excludes any concern with resolving educational problems at all. [50]

I think that Carr and Kemmis overstate their opposition to the 'scientific' and 'interpretive' conceptions of educational research here and in so-doing, misappropriate some of Habermas's work. They dismiss both nomological and interpretive research and suggest that educational theory can **only** be critical theory, in the very limited sense of its being a product of action research. Yet Habermas does not elevate critical theory above nomological and interpretive theory to that extent; for him all three are important. It seems absurd to suggest that any attempt to interpret an educational practice (e.g. the attempt to find out how many children are eligible for a certain course of study) is "not really concerned with educational problems".

Instead Carr and Kemmis require educational research to be scientific [51] in the sense that it

> emancipates teachers from their dependence on habit and tradition by providing them with the skills and resources that will enable them to reflect upon and examine critically the inadequacies of different conceptions of educational practice. [52]

From this Carr and Kemmis elicit five defining characteristics of educational theory conceived in this way. These may be summarised as follows:

1. Action research does not construe its object positivistically. Instead its object is construed as praxis. Carr and Kemmis liken praxis to Polanyi's notion of "personal Knowledge", which is authenticated by rational reflection. The reflective process is viewed as a continuous spiral with the actor researching his own praxis.

2 Action research encourages equal participation and collaboration in order to facilitate the achievement of an objective. So-called "outsiders" are not part of the research process, since they have no access to the practitioner's own meanings and may also distort the balance of equal participation. In a reference to the account of action research that Nisbet [53] outlines, Carr and Kemmis lament:

> what passes for action research today is not action research at all, but merely a species of field experimentation or applied research carried out by academic or service researchers who co-opt practitioners into gathering data about educational problems for them. [54]

When this happens the outcomes are often technical rather than emancipating or practical.

3. Action research should involve methodical reflection in order to enable practitioners to distinguish between ideologically distorted interpretations and correct interpretations. Action researchers therefore need freedom of discourse in order to "redeem validity claims". They need open communication gained in actual experiences in order to engage in the

> selection of strategies, the resolution of tactics and the conduct of political struggle. [55]

4. The above requirements lead action researchers to identify what is wrong with the existing social order and particularly those aspects of it that frustrate their researches. Action researchers

> intervene critically in all patterns of action which fragment communities and isolate individuals ... This view of collaboration is the basis of social solidarity. [56]

5. Even though action research is directed by practice, it must "relentlessly" pursue all aspects of irrationality, injustice and domination and not rest content with small changes which merely "anchor the conditions of the status quo". [57]

I turn now to a critical appraisal of the position advanced by Carr and Kemmis by examining their example of the way in which a school staff might set about implementing a programme for action research. According to Carr and Kemmis, the staff should have

> constituted itself so that its discourse was rational and authentic: so that people could speak openly and freely, so that (as individuals) they could understand what was being said (authenticity), and so that there would be mutual understanding through the language used (communication), and so that they could develop a common orientation towards action. [58]

To achieve this sort of constitution, however, might not be possible within the legal and administrative framework presently laid down for British schools to work within. For example, teachers are legally bound to a set of conditions of service that reflect and are entrenched within a hierarchical organisational structure. While promoted members of staff might be willing to relinquish their rights to certain privileges and salary differentials, they may not be able to relinquish their rights to pension differentials and their legal responsibilities for the efficient running of the school. The present legal framework may preclude the constitution of an 'action research' community ab initio and the discourse of those communities that **purport** to be constituted as above, **in fact** might be systematically distorted.

Even if these legal and administrative problems could be overcome, Carr and Kemmis recognise that

> as real decisions are taken, the self-interests of some of the staff will be served at the expense of the self-interests of others, and self-interests of the staff may come into conflict with self-interests outside the group (those of students and parents, for example) [59]

As I argued earlier, 'theory' cannot be both a conceptual framework that presently guides individual practitioners **and** the means of **emancipating** those practitioners from their frameworks. Moreover there are other individuals interested in the educational enterprise, as well as teachers, and it may be that these other individuals need to be emancipated from **their** inadequate conceptual frameworks. By construing 'educational theory' exclusively as a response to the problems that teachers face, Carr and Kemmis lack any means of knowing just whose conceptual framework is inadequate and to what extent it is inadequate. It will not do to imagine that the activity of teachers incorporating the notions of praxis and open communication will make it obvious to all which problems are to be tackled first and by whom.

Were the main focus of attention for 'action research' to be classroom practice, then it might not matter so much that Carr and Kemmis construe action research as a response to the problems that **teachers** face. As it is, however, Carr and Kemmis are keen to avoid limiting the scope of action research in this way. [60] Yet if action researchers are to move beyond classroom research and to "reject all conditions which sustain irrationality, injustice and domination" [61] then it follows that teachers as 'action researchers' should be able to recognise when such conditions arise. However this conclusion begs both the question of whether it **is** irrational that "our society is not marked by participatory processes of decision making" [62] and the question of whether 'action research' provides a way of distinguishing ideas

that are more systematically distorted by ideology from those that are less systematically distorted? [63]

The constitution of an 'action research' community **presupposes** the superiority of a particular form of rationality based on the idea that minimum ideological distortion is achieved in the 'ideal speech situation'. Yet it cannot be uncritically assumed that a community of 'action researchers' operating within a legal and administrative framework that is allegedly "irrational" is going to be any more successful in approaching the 'ideal speech situation' than any other community that is interested in education. Therefore I believe that Carr and Kemmis make a mistake when they go on to recommend a form of teacher professionalism in which teachers alone are supposed to be able to make informed educational judgements:

> in these times of increasing bureaucratic management in education, the profession must organise itself to support and protect its professionalism. [64]

As I argued in chapters 2 and 3, the professionalisation of educational theory is supportive of and in the 1960's led to the entrenchment of the very conception of rationality that Carr and Kemmis reject. We may wonder whether the effect of professionalising educational practice within an administrative framework that still reflects a bureaucratic conception of rationality would not be further to entrench that conception of rationality. In other words, we may wonder whether teachers are in any better position to make informed educational judgements free from prejudice **and outside interference** than "professional educational theorists" employed in the Colleges and Departments of Education. Putting it more strongly, we may wonder whether Carr and Kemmis's proposal would lead to the so-called "professional judgement" of teachers becoming simply another device for theoretically legitimising a bureaucratic conception of rationality.

For me, the notions of 'professionalism' and 'practical discursive rationality' are logically incompatible. Educational decision-making cannot be both the open process presupposed in the notion of an 'ideal speech situation' and the closed process presupposed in the notion of professionalism. If teachers were to organise themselves in the ways that Carr and Kemmis recommend, then it is not clear from what perspective or even from what source the knowledge, skills and abilities requisite for action research would be supplied in order that teachers might become action researchers. It is also unclear how a reconciliation would be achieved between the need to exclude so-called "outsiders", who might distort teacher discourse and the need for educational institutions to allow their members to participate in the wider social practices of communication, decision-making and collaborative action [65] that is required by Carr and Kemmis's appropriation of Habermas's prescriptions for a rational society. [66] This is the fundamental problem for Carr and Kemmis: they fail to show how the professionalisation of educational practice is compatible with practical discursive rationality and hence they fail to grasp the key question as to how educational theory might serve to mediate between the various interests that compete, in order that we should be able to decide what to do in educational institutions.

Natural Science as a Model for Educational Theory

Rorty has generalised Kuhn's account of natural science to discuss how social philosophy might be conceived if it were modelled on Kuhn's account of natural science. It might be helpful to examine Rorty's discussion before going on to examine how educational theory might appear if it too were modelled on that account. Rorty [67] generalises Kuhn's account of normal and revolutionary science into what he calls normal and abnormal discourse. Just as natural science is supposed by Kuhn to depend on an "essential tension" [68] between tradition and innovation in scientific research, so Rorty supposes that, for

conversation to remain open, there must be an 'essential tension' between traditional or "normal" discourse, in which there are accepted procedures for settling disagreement, and innovatory or "abnormal" discourse, where such procedures do not exist. Epistemology is the aim of "normal" discourse and hermeneutics the aim of "abnormal" discourse. On this account, the difference between epistemology and hermeneutics becomes simply one of familiarity.

> We will be epistemological where we understand perfectly well what is happening but want to codify it in order to extend, or strengthen, or teach, or 'ground' it. We must be hermeneutical where we do not understand what is happening but are honest enough to admit it, rather than being **blatantly** 'Whiggish' about it. This means that we can get epistemological commensuration only where we have agreed upon practices of enquiry (or, more generally, of discourse) ... We can get it not because we have discovered something about 'the nature of human knowledge' but simply because when a practice has continued long enough the conventions which make it possible - and which permit a consensus on how to divide it into parts - are relatively easy to isolate.[69] (original emphasis)

According to Rorty, "epistemological commensuration" is not restricted to those communities we call "scientific". Instead of our imagining that scientists are concerned with something called "objective truth", while everybody else is merely concerned with "subjective conditions", Rorty suggests we should see that to be a scientist is no more than to be someone concerned with certain types of problem:

> 'objective truth' is no more and no less than the best idea we currently have about how to explain what is going on ... 'subjective conditions' ... are just the facts about what a given society, or profession, or other group, takes to be good grounds for assertions of a certain sort.[70]

Just as scientific communities agree in the language games they play, so too do farming, building, legal and many other types of community. What we know depends upon the networks of agreement within these communities and the contingency of meeting their members and of accepting and recognising their authority. That is not to advocate relativism. In Rorty's opinion, no one believes that every member is equally competent and that any account that

might be offered is as good as any other. Our inability to justify moral claims, for instance, in an algorithmic way does not mean, as the emotivists would argue, that such claims can never be settled. Fairly obviously many moral claims **are** settled in ways that satisfy the claimants at the time of the claim. Of course those who the community recognises as having superior competence in the areas of discourse within which the dispute is located are more likely to be able to support their claims than those whose competence is inferior but this ability is precisely what refutes emotivism and what stops any slide into (moral) relativism.

There appears to be a measure of agreement between Rorty and Gadamer here, in as much as Gadamer's notion of authority as the recognition of someone who knows can be understood as the recognition that someone is a full member of a 'normal' community. We do not have to be a full member of that community ourselves to recognise the authority nor do we have to be a full member of that community in order to cast doubts on its practices. However Rorty departs from Gadamer's position when he writes:

> It is the commonplace fact that people may develop doubts about what they are doing, and thereupon begin to discourse in ways **incommensurable** with those they used previously. [71] (my emphasis)

By using the term "incommensurable", Rorty seems to me to fall into Kuhn's earlier difficulty of attempting to reconcile the ideas of 'theory-preference' and 'revolutionary conceptual shifts'. If Rorty were to accept Kuhn's later resolution of this difficulty and adopt the idea of epistemology as communally agreed interpretation, his account of abnormal discourse might be more plausible than one which seems to suggest that abnormal discourse floats free of any communally agreed norms. While Rorty concedes that

> abnormal and 'existential' discourse is always parasitic upon normal discourse, ... the possibility of hermeneutics is always parasitic upon ... epistemology. [72]

Rorty does not develop the notion of "parasitic" further. If he were to embrace Gadamer's insight that **all** conversations share the characteristics of normal and abnormal discourse to varying degrees, depending on the amount of conceptual innovation involved, he would be able to account for the way that abnormal discourse is **related** to normal discourse through 'family resemblances' that prevent hermeneutics from sliding into relativism. To put it in Gadamer's terms, the jettisoning of useless prejudice is made on the basis of a fusion of horizons. The horizon of expectation which a participant brings to an encounter is itself the result of the fusion of the many horizons that are rooted in normal discourse.

We may regard a 'fusion of horizons' as the risking of the prejudices of normal discourse in order to help us come to an understanding of what each other is saying. 'Risking' does not mean jettisoning them and the resultant abnormal discourse nevertheless has some things in common with normal discourse, for which accepted authorities and standards of adjudicating claims to truth exist. So it is the consensual norms and intersubjective meanings of the communities, of which the conversational partners are members, that sustain abnormal discourse and crucially **keep the conversation going.**

The way may now be open for us to essay an account of educational theory that has both the characteristics of a practice and at the same time serves to mediate between those practices that are constitutive of the educational enterprise. I suggest that Kuhn's account of natural science may serve as a model here, for if it is accepted that natural science is itself constituted by a range of forms of discourse and that theory-preference becomes a matter of interpreting what the proponents of different theories are doing according to practical interests that are shared among sub-groups of natural scientists, then theorising about education may follow the same pattern.

I can now try to bring the various arguments that have been presented in this and the previous three chapters together. In chapter 4 we saw that educational theory might be viewed as a subset of an overall network of theory that develops scientifically. In chapter 5 we saw that natural scientific and other types of theory development were parasitic upon each other because of the 'linguistic division of labour' both across communities of theorists and **between** communities of theorists. We saw also that theory-preference is always underdetermined by observational data and that values **guide** the choices that theorists make. However those choices are not made solely on the basis of a list of criteria that a community simply applies. Instead choices are made on the basis of interpretations within some commonly agreed temporary framework that binds the community together. In chapter 6 we saw that the distinction between practical and theoretical interest is more one of degree rather than kind and that even though the values that appear to guide educational theorists are close to our practical educational interests, there is no reason to suppose that educational theory might not be modelled on natural scientific theory. In this chapter I have discussed Habermas's notion of "the ideal speech situation". I believe that a further explication of this notion may offer the possibility of avoiding the idea that educational theory can only be a response to immediate practical problems and finish paving the way for modelling my elucidation of the nature of theorising about education on Kuhn's account of natural science.

We noted that Popper's theory of truth as 'a regulative ideal to which a series of scientific theories approaches assymptotically' leads to the mistaken conclusion that scientific theory is exclusively concerned with "puzzle solving" - eliminating "minor anomalies" **within** a common framework of enquiry. If we substitute Habermas's consensus theory of truth based on "the ideal speech situation" for Popper's correspondence theory of truth, we can explain

"revolutionary" changes in science. Rather than imagining that consensus in an "ideal speech situation" informs a **series** of theories, we may suggest that an 'ideal consensus' informs **each** attempt at theorising. As Hesse puts it:

> Every theory making truth claims in a particular conceptual framework includes its own 'anticipations' of the total nature of the world as far as it is relevant to that theory. The commitment to anticipated consensus is the commitment to abandon falsified positions, and also to abandon conceptual schemes that do not lead to consensus. There is no last theory or theorist in the sense that science stops there frozen in whatever conceptual scheme happens to be then current. But every serious theory and sincere theorist is 'the last' in the sense that **that** is where the accountability in the face of ideal consensus operates for him. To enter the scientific community presupposes acceptance of that accountability. [73] (original emphasis)

In this way each attempt at theorising may call into question either individual theories or a complete framework of enquiry and so each attempt at theorising may lead to "revolutionary" changes.

This explanation depends upon the assumption that an 'ideal consensus' should function like any other value judgement as a guide to theory-preference. However this assumption may be made only **after** an option is taken for practical discursive rationality rather than technical bureaucratic rationality as a means of organising social institutions. As Hesse notes:

> The choice of 'persons' and participatory meanings as fundamental concepts in the hermeneutical sciences is not a necessary choice, as is shown by Habermas's barely disguised fears that scientistic and impersonal 'systems theories' may after all prove technically successful in organising post-capitalist society on a stable basis. The choice of the concept 'person' becomes 'transcendentally necessary' only **after** an option is taken for practical discursive rationality and individual humanity. [74] (original emphasis)

In other words, despite the complexity of Habermas's account of critical theory, the only alternative to the systems-theoretic approach of the empiricist is a form of practical rationality based on the "ungrounded hope" that human life will be improved if social theorists are guided by a concern to secure an "ideal consensus". At the end of the first phase of his work, Habermas expressed this "hope" as follows:

> on this unavoidable fiction rests the humanity of intercourse of men who are still men.[75]

Even though educational theories may never be "objective" accounts of educational 'reality' and even though it may not be practically possible to redeem the validity of every theory in "discourse", that does not mean that we cannot advance reasons to support particular educational theories, where that support is required. In this study I have tried to support the claim that theorising about education should be modelled on Kuhn's account of natural science rather than on an empiricist account of natural science. To support this claim further, I suggest that it is possible and profitable to speculate how theorising about education might be improved if the educational community were to emulate those features of the natural scientific community that are held by Kuhn, to be important in enabling natural scientists to make choices that are commonly regarded as propitious for our overall theoretic development.

For example, we might suggest that there should be an "essential tension"[76] between innovation and tradition in educational research and that tradition should play a larger part in educational practice than might be allowed by empiricists. Kuhn denigrates the idea that "divergent thinking"[77] is more important than "convergent thinking" in scientific research. He makes the practical point that a scientist who questioned every anomalous observation simply would never complete a first research project and points out that tradition gives stability to the evaluation of innovatory proposals. He also draws our attention to the fact that the natural scientific community has a much greater say in the selection of its research problems than is the case for a community of applied scientists whose interest is primarily technical and whose research problems are largely determined **without** the community of

applied scientists. Finally Kuhn recognises the role that experiment plays in scientific research by providing "anchoring points" on which to pin a developing network of theory, at least temporarily. Now while these suggestions barely explain what it is about the scientific community that enables it to regulate itself in such a way as to anchor a developing network of theory in propitious ways, they **do** give three pointers as to how we might improve our theorising about education.

First, even though theory and practice are coextensive and everybody is, to a different extent, both theoretically and practically inclined, that is no reason to doubt that there might be some advantage to be gained in instituting what might be called a theoretical practice, that attempts to reinterpret what was going on across a range of other practices, in the hope that such a reinterpretation might make for a greater perspicuity in the choices that educational practitioners face. The distinction between experimental and theoretical natural scientists may form a model here: just as the theoretical physicist cannot proceed for long without reference to the work of the experimentalist, so too we may suggest that the educational theorist could not proceed for long without reference to the work of the educational practitioner. By constantly interpreting what each other is doing the practitioner and theorist may share linguistic practices in order to avoid a loss of meaning of those terms that are of central importance to the evaluation of rival interpretations. On this view our ordinary idea of a conversation serves as a guide to the importance of sustaining a conversation between those whose interest is predominantly 'within a practice' and those whose interest is predominantly 'across a range of practices' constituting educational institutions and their typical forms of discourse.

Second, we may make progress by placing greater emphasis on tradition in educational theory and practice. We may resist some innovatory curricular and managerial initiatives on the grounds that we do not have a stable tradition of educational discourse against which to evaluate such innovations. Even though there may be considerable political pressure on educational theorists to innovate, we might be on firm ground in resisting this pressure and paying far more attention to achieving a consensus between educational theorist and practitioner regarding those innovations that command widespread support. This suggestion would involve changes in the way in which educational theory is presently conceived in relation to policy-making and implementation.

In order to explain this second point we may compare private and state sector schooling. Many parents prefer to send their children to private schools. It might be suggested that this is because private schools are better resourced, have pupils whose parents are generally more articulate than their state counterparts and so on. However it can also be suggested that private sector schools are characterised by a stability not present in the state sector. The private sector school seems not to have to respond to anything like the rate of curricular change that has recently faced and currently faces the state sector.

It can be argued that the private school curriculum is basically academic and that changes like those towards computing or craft, design and technology can be planned against a fairly settled curricular background. In other words those who work in the private sector have a more settled form of practical discourse which enables them to appraise educational developments. This option is not open to the state sector, which takes the brunt of the forward thrust of foundationalist empiricism, not cushioned by any financial reserve and more

immediately compelled to accept and implement those recent curricular developments that have been largely directed towards the less able child.

However the private sector has some less able children too and it might be suggested that parts of the state sector might emulate the private sector by deciding simply not to accept uncritically many of the new "exciting curricular developments" and instead adapt, update and modify many of the old. The empiricist's idea that learning involves the accumulation of **relevant** bits of knowledge might be rejected in favour of a hermeneutic idea of learning which stresses the importance of moving from present 'prejudice' towards future understanding. In other words the emphasis might be shifted away from a narrow vocationalism back towards an ideal of more liberal and/or academic education within the state sector, the detailed content of which might only be important to the extent that it enables learners to go on and find things out for themselves - and encourages them to do so. In this way the manner in which teachers view what they are doing and the satisfaction that they get from their job become crucial determinants of the success of their teaching.

Finally we might find it profitable to cease regarding education as a sort of technology that can be instituted and/or deployed to solve any social problem we face. I have already criticised the idea of an exclusively vocational education as if, for instance, education could resolve the problem of unemployment. A similar criticism may be advanced against the idea of an exclusively political education for democratic autonomy. As Edgley points out:

> political education for autonomy raises the question: should schools train revolutionaries? The very idea is [a] fantasy ... Its being so indicates the strict limits of education's political power, and of its powers in political education.[78]

The point is that education is simply one factor in the development of a society and is a facilitator of just one conversation among the many that people engage in during the course of their lives. We should not imagine that, by setting educational objectives from without the educational community, our social problems will necessarily decrease, as if educational theory were some kind of applied science. Instead we should note that pure research in the natural sciences has had far greater technological 'pay-off' than any attempt to tailor research to satisfy some perceived need; for this reason perhaps, educational theorists should emulate the natural scientific community by seeking and claiming much greater say in the selection of their educational research problems.

———oOo———

NOTES AND REFERENCES

1 Habermas J. Knowledge and Human Interests 1971.
2 Habermas J. The Theory of Communicative Action 1984.
3 Habermas J. 1971, p 4. By "scientism", Habermas means that empirical science is co-extensive with knowledge and that empirical nowledge is sufficient for its own explanation.
4 Habermas J. 1984, p 70.
5 Habermas J. Theory and Practice 1974, p 255.
6 Ibid., p 254.
7 Giddens A. New Rules of Sociological Method 1976, p 62.
8 see Habermas J. "On Systematically Distorted Communication" 1975.
9 Habermas J. "A Review of Gadamer's Truth and Method" 1977, p 360.
10 Habermas J. "A Postscript to Knowledge and Human Interests" 1973, p 176.
11 Habermas J. 1977, p 358.
12 Gadamer H.G. Philosophical Hermeneutics 1976, pp 18-43.
13 Gadamer H.G. "Replik" 1970.
14 Gadamer H.G. 1976, p 35.
15 Ibid..
16 Ibid., p 39.
17 Gadamer H.G. 1970, pp 315-316.
18 Gadamer H.G. 1976, p 42.
19 Habermas J. 1984.
20 Habermas J. 1973b, p 168.
21 Habermas J. "Towards a Theory of Communicative Competence" 1970 p 143.
22 Habermas J. Legitimation Crisis 1976, p 113.
23 McCarthy T. The Critical Theory of Jürgen Habermas 1978, p 321.
24 Habermas J. "What is Universal Pragmatics" in Communication and the Evolution of Society 1979, p 26.
25 Bernstein R.J. Beyond Objectivism and Realtivism 1985, p 24.
26 Lloyd D.I. "Theory and Practice" 1976, p 105.
27 Ibid., p 112.
28 Ibid., p 109.
29 Wilson J. Educational Theory and the Preparation of Teachers 1975.
30 Wilson J. "Do We Need Educational Theory?" J. Philos. Ed. 1985, 19 no 1, pp 143-146.
31 Ibid..
32 Pring R. "Philosophy of Education and Educational Practice" 1970, p 61.
33 Ibid., p 68.
34 Ibid., p 70.
35 Ibid., p 72.
36 Carr W. "The Gap Between Theory and Practice" 1980. The Bibliography contains references to Carr's most recent publication in which he develops this idea further.
37 Ibid., p 65.
38 Ibid., p 66.
39 Nisbet J. "Educational Research: The State of the Art" in Dockrell W. Hamilton D. eds. Rethinking Educational Research 1980.
40 Ibid., p 6.
41 Ibid..
42 Klafki W. Aspekte kritisch-konstructiver Erziehungswissenschaft 1976, p 60.

43 The notion of a 'discourse' is discussed extensively by Habermas. He gives two conditions for a 'discourse' to take place - (1) the parties entering into the 'discourse' look upon each other as equals. (2) the parties are free from the compulsion to act.

44 cf. Brock-Utne B. "What Is Educational Action Research?" CARN Bulletin no 4, 1980, p 10.
45 Ibid., p 13.
46 Nisbet J. 1980, p 6.
47 Carr W. Kemmis S. Becoming Critical: Knowing through Action Research 1983.
48 Ibid., p 108.
49 Ibid., p 112.
50 Ibid., p 113.
51 See also Carr W. "Can Educational Research be Scientific?" 1983.
52 Carr W. Kemmis S. 1983, p 118.
53 Nisbet J. 1980.
54 Carr W. Kemmis S. 1983, p 173.
55 Ibid., p 179.
56 Ibid., p 182.
57 Ibid., p 184.
58 Ibid., p 145.
59 Ibid..
60 Ibid., p 161.
61 Ibid., p 184.
62 Ibid., p 181.
63 Ibid., p 177.
64 Ibid., p 198.
65 Ibid., p 192.
66 Habermas J. Towards a Rational Society 1971.
67 Rorty R. Philosophy and the Mirror of Nature 1980.
68 Kuhn T.S. The Essential Tension 1977.
69 Rorty R. 1980, p 321.
70 Ibid., p 385.
71 Ibid., p 386.
72 Ibid., pp 385-366.
73 Hesse M. Revolutions and Reconstructions in the Philosophy of Science 1980, p 219.
74 Hesse M. 1980, p 225.
75 Quoted in McCarthy T. "A Theory of Communicative Competence" Philosophy of the Social Sciences iii, 1973, p 140.
76 Kuhn T.S. 1977.
77 Ibid., p 226.
78 Edgley R. "Education, Work and Politics" 1980, p 15.

———oOo———

CHAPTER 8

EDUCATIONAL THEORY AS INTERPRETIVE PRACTICE

Throughout the earlier part of this study, many considerations seemed to be leading us either to the view that there must be a permanent neutral framework of enquiry that serves to mediate between competing educational claims (objectivism) or that all claims are as valid as each other (relativism). In the latter part of this study I have argued that the notion of interpretation can offer us the possibility of avoiding this kind of either/or opposition. The argument that led me to this view may be summarised as follows: interpretation involves the attempt to make clear and to bring coherence to something that may prima facie appear too condensed, negatory, ambiguous, confused or incoherent. In any occasion of interpretation there are at least three parties involved: the interpreter, the interpreted, and some individual or group who might be potentially, if not always actually, interested in the interpretation. A successful interpretation must appeal to some common meanings which the interpreter and the group of people share. If these common meanings are not available then not only is the achievement of a fresh understanding impossible for the receivers but the interpreter may have good reason to doubt his own interpretation. We can respond to this uncertainty either by searching for something which approaches an algorithmic account of interpretation (this roughly has been the response of the empiricists,) or we can - as Taylor suggests - simply decide to accept the ambiguity and live with it:

> ... perhaps the only sane response to this would be to say that such uncertainty is an ineradicable part of our epistemological predicament; [1]

In this final chapter, I attempt to substantiate the claim that educational theory should be viewed as an interpretive practice by arguing that

interpretation, understanding, educational theory and teaching constitute a family of concepts related through the idea of a practice. I go on to argue that Gadamer's account of a "conversation" may serve as a guide to the nature of the relationship between theory and practice and finally I suggest a way in which educational theory might be validated.

The Idea of a Practice

I use MacIntyre's definition of a practice:

> By a 'practice' I am going to mean any coherent and complex form of socially established cooperative human activity through which goods internal to that form of activity are realised in the course of trying to achieve those standards of excellence which are appropriate to, and partly definitive of, that form of activity, with the result that human powers to achieve excellence, and human conceptions of the ends and goods involved are systematically extended. [2]

However I do not agree with MacIntyre when he suggests that

> Bricklaying is not a practice; architecture is. Planting turnips is not a practice; farming is. [3]

Instead I suggest that, while bricklaying and turnip planting do not obviously involve their own "standards of excellence", that are "systematically extended", nevertheless such involvement and extension are **necessarily** involved in **any** endeavour in which a group of people are engaged. Therefore by "practice", I do not just mean the exercise of technical skills. I mean to imply something akin to the notion of praxis where a community shares a conception of the relevant goals to which technical skills are put and which are partly constitutive of the practice. Like MacIntyre I do not suggest that these goals are fixed once and for all:

> the goals themselves are transmuted by the history of the activity. It therefore turns out not to be accidental that every practice has its own history and a history which is more and other than that of the improvement of the relevant technical skills. [4]

MacIntyre's examples of the practices of painting and physics are easy to elucidate: they plainly involve technical skills, yet these skills are interwoven with the ends which they serve. Furthermore the discourse(s) that take(s) place within these practices reflect(s) those things that the practitioners value. Such values are not articulated once and for all or on an annual basis, like the setting of objectives within a bureaucratic plan. Rather the discourse reflects the way that previous practitioners have valued what they were doing. To enter into a community of practitioners is not only to enter into a relationship with its present members but also to enter into, and to confront, a tradition.

Some other possible candidates for our consideration as practices are not so easy to elucidate, for example, activities such as building and nursing. In those cases, it appears that technical skills are involved in the service of ends that are externally set. Thus the builder follows the plan of an architect, the nurse follows the instructions of a doctor and/or administrator. The reason that these practices are not easy to elucidate is that they have been subject to the kind of professionalising trend that I argued has been imposed on the activity of teaching. Just as educational theorists are commonly supposed to guide the practice of teachers, so architects, administrators and doctors are supposed to guide the practice of builders and nurses respectively.

Much as some might mourn the so-called "professionalising" trend in such cases, and the apparent deformation of the practice in question, I believe that nursing, building and teaching **are** practices in the sense that I outlined above. This is because it is not possible to engage in discourse that **solely** reflects the evaluative concerns of some other group. For example, while a builder may be working to an architectural plan, the plan cannot, however detailed, cover every aspect of actually putting bricks in a certain order, fastening windows and so on. Throughout the building work, the builder needs to have some idea

of how the building might be used, in order to help him make the sort of decisions necessary successfully to conclude the work. Moreover the architect may have made a mistake which the builder will have to interpret and correct in order to get on with **his** work.

It may be possible to hypostatise some objectives with which builders are concerned, such that they function as descriptive propositions that serve to give a broad outline to certain aspects of a practice: for example the type of materials required, the required pitch of a roof and so on. Yet, **any** form of discourse involves the interweaving of evaluations and descriptions **throughout the propositions that make up the form of discourse. For practitioners** there will always be a variety of ways of giving sense and purpose to the work that they are doing other than to simply repeat the externally set objectives.

In the case of teaching, while learning objectives may be set by some external curriculum agency, the teacher needs to make the objectives his own in the sense that he takes a sympathetic interpretation of those objectives and imbues it throughout the total fabric of his professional discourse. For example, if those learning objectives are to have any meaning for teachers then the curriculum designer's use of the terms in which the objectives are formulated needs to share a demonstrable connectedness with teacher's use of those terms. Moreover the values that guided their selection need to be related to the teacher's own values. If for some reason these conditions are not met, because, say, of the rigidity or the unsuitability of the objectives, then teachers would seem to have little choice other than overtly to conform to whatever norms were expected of them as regards the course administration and so on, while in the class room they continue to teach in a way that seems to them to be practically effective. Some recent moves towards

criterion-referenced internal assessment may have faltered because teachers were unable to understand the intentions of the curriculum designers. [5]

Even where a practice is supposedly analysed into its component parts and practitioners are classified according to the part that they play in the whole (for example in joinery or bricklaying) it is still necessary to decide upon things like the type of screws to be used, how many bricks should be carried at a time and so on. To object that these are mere "technical skills" is to miss the point that "technical skills" do not float free of the acts, work and judgements of the people who promote those skills and the conversations that they have during such a promotion. To imagine that a "technical skill" can be isolated from the context in which it is practised is to make the same mistake as to imagine that descriptive propositions can be isolated from evaluative propositions once and for all on the basis of some pre-given criteria. If this mistake is avoided then the notion of a practice can be applicable whenever it is possible to discern a group of people who are engaged in the same sort of activity, however elementary that activity appears to be.

It might be objected that some one can lay bricks without having the slightest conception of the overall use to which the wall will be put. It might be argued that the decisions that have to be made, such as whether to leave drainage channels, how many, where to leave them and so on, can be dealt with by some sort of supervisor such as a foreman. However even in this case there remains the possibility that other ends imported from other parts of the building enterprise might infect whatever discourse the bricklayer is supposed to have - for example the estimated completion date, the rates of pay for early finishes and so on.

This infection of practical discourse by norms arising from contiguous and even often apparently unrelated parts of other discourses is not peculiar to bricklaying or turnip planting. To differing extents all practices are deformed in differing degrees by such infection. For me, MacIntyre's neat separation of practice from skill is too much informed by a romantic vision of the continuity and purity of tradition, as if people ever existed within **one** community whose **only** concern was with the purity of their discourse and the excellence of its deeds or achievements.

The same objection may be raised against MacIntyre's distinction between practices and institutions. MacIntyre argues that some things are considered to be intrinsically worthwhile within a practice - things like accuracy, style and perhaps commitment, though the precise nature of these "internal goods" [6] depends upon the practice concerned; whereas "external goods" - things like power, status and money - may result from the practice but are not inherently or intrinsically connected with it.

> There are always alternative ways for achieving such goods, and their achievement is never to be had **only** by engaging in some particular kind of practice. On the other hand there are the goods internal to the practice ... which cannot be had in any other way ... nor ... identified and recognised [other than] by the experience of participating in the practice in question. [7] (original emphasis)

Institutions are characteristically (and for MacIntyre necessarily) concerned with external goods, in order to sustain the practice(s) with which they are related. For MacIntyre there is a tension between the institution's competitive search for resources (equivalent to external goods) to sustain the practice, and its practitioners' attempts to realise intrinsic goods.

> [T]he ideals and creativity of the practice are always vulnerable to the ... competitiveness of the institution. [8]

Hence the institution has the power to corrupt the sense of community among practitioners necessary for the successful flourishing of a practice.

Teaching

It is possible to describe the extent to which a practice has been deformed by the identification of external goods that may have infected the practical discourse through its relations with other forms of discourse, institutional or otherwise. Instead of arguing, as MacIntyre does, that such infection is always undesirable, [9] I maintain that a certain amount of such infection is inevitable and, indeed, **necessary**, for in trying to get someone to understand a practice I need to draw upon a common language, a common background of shared experiences, and shared conceptions of what is worth valuing. Unless my conversational partner has already participated in the practice, in which case he already understands it, then there has to be some entering wedge by means of which we can develop a shared understanding and so get a purchase on our practice. Our common experiences and interests provide this entering wedge. MacIntyre's conception of a practice as something self-contained leads both to the idea that **all** aspects of a practice remain closed to the possibility of understanding on the part of those 'on the outside', and to the idea that understanding a practice involves a sort of conversion which occurs all at once.

Both ideas are untenable. I do not wish to argue that, when someone "grasps an idea", "gets my meaning" or "cottons on", as it were, something like a conversion does not **appear** to have taken place; rather I suggest that such conversions occur **throughout** an explanation. That is not to suggest that such conversions always involve some sort of activity whereby the learner "tries something out for himself". Instead such conversions often involve nothing more than the learner identifying a 'family resemblance' between the two uses of a term, with one of which the learner is familiar and the other of which the learner is trying to understand.

When people are interested in a particular practice, then they may simply watch and interpret the practice on the basis of their own "horizon of expectations". Alternatively they may actually work with a group of practitioners as apprentices. MacIntyre seems to limit learning to these two instances and even then does not account for the way in which such acts of observation or apprenticeship can help one get a purchase on the learner's 'horizon of expectation'. I want to leave room for another instance in which a teacher engages a group of learners in conversation, the purpose of which is to intrigue them into posing ever new questions concerning the possibilities of understanding what is going on around them. If MacIntyre is correct in his suggestion that practices are self-contained, then it is difficult to envisage how this latter instance of learning could ever take place.

As I argued earlier, even "technical skills" do not float free of the conversations that people have whilst they practise those skills. Similarly observations do not float free of some kind of organising interest, some kind of "theory". Furthermore there would be no previous experience upon which observers could draw in order to interpret their observations, if practices were self contained. Instead we should have a fixed number of self-contained practices maintained by communities, whose members would be the masters whose task consisted of inducting novices into the constitutive and regulatory rules of the practice. [10]

However, learning and understanding, teaching and interpreting converge when someone interprets the practice for the learner on the basis of their having an understanding of the way that that practice relates to other practices and other discourses. People's understanding may be enhanced by engaging in a conversation in which their own 'horizon of expectations' is fused with the prejudices of tradition that stores the interpretive work of people's previous

attempts to understand. The teacher takes on the role of conversational partner in order to present the prejudices of tradition.

To put it in Gadamer's terms, a conversation involves the participant's useless "prejudice(s)" being continually discarded as a result of the recognition that the other participant's prejudice is superior, in the added dimensions of ability and insight it confers; that is to say that "prejudices" are discarded as a result of the recognition of another viewpoint's superior 'authority'. To recognise that authority is to take the first step towards being taught.

While the recognition of authority **enables** students to learn it does not **determine** their learning. The teacher is not just presenting the prejudices of tradition in the form of a structured series of texts designed to increase students' knowledge on the basis of maxims like "move from the known to the unknown" or analogies and metaphors. The teacher is also trying to intrigue students into posing new questions for themselves, and then to see that the answers to these questions pose new questions and so on, in the hope that students will be able **to go on** on their own. As Gadamer puts it, greater understanding may lead to "a growth in inner awareness of 'future possibilities'" [11] which in turn intrigues the learner into reinterpreting what presently goes on in order to try to resolve a tension between "future possibilities" and present understanding. It follows from this account of teaching as the presentation of the prejudices of tradition with the purpose of intriguing the learner into posing new questions about his predicament, that a broad interest across many forms of discourse is likely to be productive in sustaining the diverse kinds of conversation through which the student learns.

Social Theory

This account of teaching as a species of "conversation" may also serve as an account of social theory. Just as teaching, on my argument, involves the presentation of the prejudices of tradition in order to enable the teacher to encourage learners to engage in conversation, with the aim of enabling them to continue on their own, so too social theory might be supposed to involve the presentation of the prejudices of tradition in the form of a coherent narrative with which to engage people in "the conversation of mankind", [12] to use Oakeshott's phrase. Oakeshott speaks thus to draw attention to the way in which tension between "present condition" and "future possibilities" is never finally resolved but serves as an impetus for a continuing conversation between a variety of forms of discourse, all of which are concerned, in one way or another, critically to reappraise all the various features of the human predicament.

This idea that the "conversation of mankind" should remain open is closely related both to Kuhn's thesis regarding the existence of an "essential tension" between innovation and tradition in natural science and Rorty's generalisation of this thesis into the notion that there should be an "essential tension" between abnormal and normal discourse. The close relationship between the aspirations of natural scientific and social theorists is important to my account of social theory because of the way in which I have argued that all types of theory are related within the same theoretic network and suggested that social theorists might emulate the activity of natural scientists.

On this view there is no distinction to be made between a narrative and dialogue. The use of the phrase "coherent narrative" is thus not meant to imply that there is any definitive narrative to be produced. Instead it is to suggest that to tell a story about what is going on is just as likely to intrigue

people into reinterpreting their predicament as any other form of discourse in which people might engage.

However the analogy between social theory and teaching is not total. The teacher-student relationship involves an asymmetry in authority relations **not** necessarily present in the case of social theory. If a student fails to understand, because the teacher is unable to engage the student in conversation, the teacher-student relationship as regards its pedagogic intent breaks down. In such cases teachers may attempt to change their orientation by attempting to get students to learn something else or the same thing in a different way. However their status as teachers depends upon their ability to engage most students in conversation for most of the time; hence the onus is on the student to attempt to understand something of other practices in order to further a conversation with a teacher. It is therefore up to those who organise educational institutions to provide learners with a range of opportunities to acquire those diverse forms of discourse and to learn something of a wider range of practices. Teachers are "**in** authority" because they are acknowledged to be **an** authority for most of the time. In other words they are assumed to be bearers of a tradition of interpretive practice for the purpose of encouraging and enabling others to join that tradition.

By contrast, the social theorist carries no such status. It is a contingent matter whether social theory succeeds in engaging people in the "conversation of mankind ". In the case of other people's failure to understand or respond, the theorist may simply give up for the time being. However there is no easy equivalent in social theory of "waiting for the student to understand" other practices. Nor is there any reason why social actors should **attempt** to understand other practices - they may simply deny that social theory has any relevance to their lives and choose to solve their problems pragmatically. Now

for social theory to have any point, it must show actors how things might look if they understood and responded to it and moreover it must convince actors that the possible state of affairs it adumbrates is also desirable. In other words, without some idea of the sort of practices in which actors might engage, it is not clear how the social theorist could ever present a convincing narrative with which to engage those actors in a "conversation". Consequently the social theorist may have to propose changes to the social world of which he is a part. As Taylor puts it:

> The practical and the theoretical are inextricably joined here. It may not just be that to understand a certain explanation one has to sharpen one's intuitions, it may be that one has to change one's orientation ... This puts an end to any aspirations of a value-free or 'ideology-free' science of man. A study of the science of man is inseparable from an examination of the options between which men must choose. [13]

That does not mean that social theorists must not take the greatest care to avoid bias and achieve objectivity. The consideration that social theory is also a species of moral theory has been thought to make it difficult for social theorists to avoid the charge that their work is biased and subjective. However as Taylor points out:

> Of course, it is hard, almost impossible, and precisely because our values are also at stake. But it helps, rather than hinders, the cause to be aware of this. [14]

In Becoming Critical: Knowing through Action Research [15], Carr and Kemmis provide an example of a social theory in the sense outlined above. These writers present a narrative that is supposed to convince their readers that teachers should become 'action researchers' and they go on to interpret a range of present practices, such as those relating to administration, management and research, in order to present a view of teacher professionalism that is meant to supplant the presently dominant empiricist notion of professionalism in educational theory.

I should like to identify social theory as interpretive **practice** in order to contrast the empiricist's conception of theory, where **content** is all important, with the hermeneuticist's conception of theory, where the **search** for, the **creation** of and the **espousal** of theory are all equally important. In the case of social theory as I have presented it, it is the conversations that people have that are important, for it is during such conversations that one's practical orientation can change. By stressing the practical nature of social theory, I seek not only to emphasise the way that communities are necessary for theorising but also to emphasise that theorising and practical reorientation are coextensive.

For example, when Klafki states that the major product of an 'action research' project may be a "discourse", [16] I take him to mean that social theory need not always be conceived as a text or a text-analogue that sets out a narrative. Instead social theory may be conceived as a practice that involves a dialectical relationship between thinking about what to do next and acting in solidarity with other participants in the "discourse". In this way social theory is concerned to foster a set of communal relations that are non-coercive and authentic. No one can know in advance the time at which the production of a narrative or the engagement of others in collaborative action is going to be most efficacious in furthering the "discourse" towards the "ideal speech situation". [17] Hence the idea of social theory as interpretive practice includes both the production of a narrative such as the one produced by Carr and Kemmis [18] **and** changing one's practical orientation through conversation with others.

There is no one way that such reorientations may take place. For example, within practices, simply thinking about what to do next is theorising in a very important sense. However social theory must go beyond this stage if it is to

avoid the difficulty that faces Carr and Kemmis when they suggest that the institution of a "discourse" among a small group of 'action researchers' will make the superiority of a form of practical discursive rationality obvious to the rest of us. [19] Instead I argue that social theory should be conceived as something more than a series of pragmatic responses to the problems that a group of practitioners face. People are also interested in the way that many practices might cohere and give sense to the way that they frame their lives as a whole. That is to say, no one is exclusively theoretical or practical or exclusively a parent, a bricklayer or a teacher. Instead people's interests extend outward from **all** their practical involvements towards a search for this coherence.

It seems to me that to promote this kind of searching is a central aim of education - the development of rationality. As I have argued, our conception of rationality should be characterised as a search for theoretic coherence by continuing to place all theoretical claims in jeopardy, though not all claims at the same time. As a result educated people continue to reformulate what J.P. White has called a "life plan" [20] **throughout** their lives. Such a 'plan' has many of the characteristics of a theoretic network - it involves assumptions, claims and predictions that may be modified and, just as a theoretic network is rearranged to incorporate new evidence, so too a "life plan" is modified in the light of changing circumstances. Such changing circumstances prompt rational people to look again at their "life plans" and to reflect upon whether the replacement of one part of those plans might lead to greater coherence within the reformulated whole.

Instead of the empiricist idea that the conclusion to successful theorising is the production of a theory, I believe that there are no distinctions to be made between theorising and theory; the idea that there might be arises out of the

dominant empiricist notion that causal conjunctions of phenomena are **everywhere** to be found. It is assumed by the empiricist that **theory** is the effect of **theorising** (conceived as mental activity), and that effective **practice** comes about by applying the theory.

Rejection of this empiricist idea does not mean that we have to give up the prospect of ever offering any kind of explanation or judgement. Rather we must accept that there is a variety of different ways of justifying and explaining - indeed that sometimes it is inappropriate even to try to explain or justify at all. Far from being unhelpful, such an acceptance helps us to concentrate on the issue of deciding which of those things that presently concern us is worth pursuing rather than casting about anywhere for **any** causal conjunctions that we might find in the hope that our picture of the world will somehow emerge better or more complete. The problem for the empiricist is his assumption that he is an investigator detached from the world; for it is this that prevents him from ever knowing by direct experience which parts of the world are **worth** investigating and those parts that require personal engagement. [21]

As I have already argued, the practice of theory-comparison in natural science depends upon the way in which the scientific community is united by a concern with certain values. A similar point may be made in the case of social theory: there is something beyond the identification of behaviour as brute data (if indeed there can ever be any such data), something that relies upon a shared conception of what is worth valuing that makes rational debate about what to do next possible.

I argued, in connection with Gadamer's hermeneutics, that there is no such thing as a meaning waiting to be interpreted, as if meaning were somehow a

static property of practical discourse. Instead I argued that coming to understand something involves a 'fusion of horizons', in which both the interpreter's and the interpreted's point of view change as a result of the confrontation of traditions, and that with the change in point of view comes a change in the meanings that certain expressions have for the interpreter. There is no way such changes can be anticipated. Instead to be a member of a community of practitioners is to have entered into a series of relationships through which the meanings encompassed by the practice are continually being transmuted. To be a member of such a community is to have an interest in such changes as they affect what a community values that is **different,** but not totally different, from those who might seek to understand the community 'from the outside' as it were. The point is that practices are not self-contained. Hence each move within a practice has significance not only against the background of that practice but also against the background of the **overall** way in which the practitioners interpret what they are doing.

It is this point that Carr and Kemmis [22] fail to grasp when they propose that teachers as "professionals" are the only group competent to interpret the needs of their "clients". These "clients" have needs that are informed by a variety of practical points of view that compete to determine what educational institutions should seek to achieve. Retreats into the notion that teachers alone should judge these competitions miss the point that the meanings of the terms in which the proponents come to formulate their viewpoints change in the course of the conversations that the proponents have. To imagine that teachers are the only people qualified to interpret the ways in which these terms change their meaning is to make a similar mistake to the one that some empirical educational researchers make [23] when they assume that meaning can be hypostatised while the behaviour of different social actors is correlated.

Since man is a "self-interpreting animal", [24] any attempt to treat him as a supplier of raw data to be sifted into empirical theory is bound to fail because the raw data will be constantly in a process of change, making prediction in the sense associated with the natural sciences impossible. However it **is** possible to interpret what people thought they were doing after the event, as it were. Prediction is impossible for social theory conceived as hermeneutics because we lack the terms in which to characterise the future. However, retrospective interpretation **is** possible. Of course the language of retrospective interpretation is not readily available; it is not just the language that the practitioners used at the time. Instead interpretive practice involves the development of a language that enables the past to be made more coherent. [25]

Hence interpretive practice frequently involves the search for 'abnormal' discourse (in Rorty's sense). That is to say, the social theorist searches for a new form of discourse with which to understand the ways in which various forms of 'normal' discourse enmesh and from which they have emerged. As I indicated earlier, the abnormal/normal distinction is nothing like so sharp as Kuhn originally claimed. What characterises social theory as opposed to any other sort of theory - and especially that of natural science, - is the range of forms of discourse which might be utilised by interpreters seeking to bring coherence to the ways in which people view their lives as a whole. This is both an advantage and a disadvantage. It is an advantage in the sense that social theorists have a greater opportunity to find forms of 'abnormal' discourse from the range of discourses available; it is a disadvantage in that a plurality of forms of 'abnormal' discourse and a rapid rate of conceptual revision can often lead to a breakdown in the consensual norms and intersubjective meanings of the normal discourses that sustain abnormal discourse.

This is the import of my earlier argument in favour of educational theorists paying far more attention to sustaining a tradition of educational practices against which innovations may be evaluated. Many social theorists, for example Taylor and Bernstein, argue that such a form of support, whilst being essential, is presently being undermined by what Taylor calls the "future-oriented productive juggernaut" [26] that is fuelled by the epistemology of foundational empiricism. In this way social theory conceived as hermeneutics is critical of an epistemology that fuels the production of a plethora of forms of abnormal discourse that undermine a tradition of social practices.

Interpretive practice is critical inasmuch as it calls into question the very intersubjective meanings that **presently** sustain normal discourse. Whereas empirical social science treats the idea of meaning as something simply subjective and always diagnoses protest as some sort of individual or joint psychological malady, interpretive practice explains protest by referring to the tension between the meanings embodied in our institutional practices and in the utilisation of which we are all involved, and changes or losses in the meaning of many of the terms that are common to our other practices.

Taylor gives an example of the ways in which this "tension" might have led to what he sees as an apparent increase in the level of protest in western societies. He argues that the institutional practices that once sustained the empiricist "thrust into the future" are no longer appropriate to a society that believes it has overcome pre-Enlightenment notions of oppression, misery and material paucity. As he puts it:

> Suddenly the horizon which was essential to the sense of meaningful purpose has collapsed, which would show that like so many other Enlightenment-based dreams the free, productive, bargaining society can only sustain man as goal, not as a reality. [27]

As long as the level of protest in western societies remained low he goes on, the attraction of an empirically-conceived social science remained: empiricist models of the natural sciences seemed to account for a continuing supply of consumer goods and it seemed obvious that the accounts of such phenomena offered by the social sciences should emulate them. However on this matter Taylor's writings converge with those of Rorty, Bernstein, Habermas and Gadamer and suggest that there is something fundamentally wrong with institutional structures based on bureaucratic conceptions of rationality as presently conceived within empiricist epistemology. For Habermas the crisis is characterised as the "increasing colonisation of the lifeworld by the systemworld" [28]. For Gadamer, the crisis is characterised as the deformation of praxis. [29] For Taylor, the crisis is characterised as a tension between present institutional realities and future possibilities for enlightened human action. He writes:

> The structures of this civilisation ... are beginning to change their meaning for many, and are beginning to be felt not as normal and best suited to man, but as hateful and empty. And yet we are all caught in these inter-subjective meanings in so far as we live in this society, and in a sense more and more all-pervasively as it progresses. Hence the virulence and tension of the critique of our society which is always in some real sense a self-rejection. [30]

By this, I take Taylor to mean that the set of common meanings that support our present institutional practices conflict with another set of common meanings that support the notion of authenticity in human relationships. This latter set of common meanings forms the basis of a 'horizon of expectations' that goes beyond a concern with material well-being and aspires towards a future in which non-coercive human relationships flourish. Yet this tension is a self-rejection insofar as our present 'horizon of expectation' is itself a fusion of previous 'horizons' that were formed on the basis of a set of meanings that we now reject. It is for this reason that there is often a certain unreality about arguments, like the ones advanced by Taylor, for forms of practices that

embody non-bureaucratic conceptions of rationality. The terms with which we seek to characterise preferred changes are not yet deeply rooted in practice. Yet these terms do have a place in those practices in which the importance of personal relationships is paramount. I refer here to those practices that occupy us in our leisure-time. A bureaucratic conception of rationality places these practices 'at the margin' of our social practices by embodying both the idea that human relationships should be treated as **means** rather than as **ends** in themselves and the further idea that in undertaking our administrative tasks, we are not morally implicated. The "tension and virulence" that is endemic to the critical function of social theory results from our making a compromise between giving up something of our free-will at work in order to obtain the affluence that is supposed to allow us to enjoy increased freedom at home. I earlier argued that this compromise is a device for legitimising a bureaucratic conception of rationality.

I have argued that the dominance of foundationalist empiricism as the epistemic framework within which much educational theory and practice is currently conceived, is undesirable. My earlier arguments may now be supplemented by an interpretation of the tension between a set of meanings that sustain our present educational practices and a set of meanings that sustain other practices into which students are supposed to be initiated. The idea that students should continue to form 'horizons of expectation' that intrigue them into posing ever new questions concerning the possibility of understanding what is going on around them, may conflict with the idea that students should be prepared for a "world of work" that depends for its effective operation upon workers severely limiting their 'horizons of expectation' to a reality that is defined for them and is to be uncritically accepted. For example, rather than the assumption that many students might be demotivated because the curriculum is alleged to be insufficiently relevant

to the "world of work", [31] such lack of motivation might be explained on the grounds of a student's perception of the quality of the experience that work is supposed to offer. Alternatively the notion of education as initiation [32] may be thought by some to be impossible, irrelevant or effete, when the structures into which students are supposed to be initiated are themselves fragmented by a loss of common meaning and values that Taylor alleges has taken place. Moreover in some cases there may be a tension between a sense of the loss of community, identity and values outside a school, and a strong sense of community within. Hence it may be that students are demotivated not so much by the quality of their experiences within the school but more by the prospect of the soured outside or lack of any sense of community that awaits them in the "real" world. School may be seen to fail to prepare people for work, not so much because of an inappropriate curriculum but more because the sense of community generated or not in a wider society seems unreal to a student population led to believe that reality is a cohesive notion defined inter alia by the importance attached to "the world of work" and the unquestioning assumptions attaching to it and to them.

To take another example, the recent industrial action taken by teachers may be explained as a protest brought about by a change or loss of meaning of many of the terms that are common to the practice of teaching. Teachers may, in part, be protesting against what they see as the diminution of their role to that of a technician responding to educational needs that are determined in abstraction from their practice. As a result the quality of that practice deteriorates to the extent that it becomes dominated by "external goods". The set of meanings that once sustained a predominance of "internal goods" within the practice, is now so diminished that teachers take industrial action in pursuit of more "external goods" as might befit any group of workers

whose objectives are largely set 'externally' and that is led to believe that it should be rewarded according to its success in achieving those objectives.

The idea that the constant attempt to replace "internal goods" with "external goods" might lead to a loss of a common sense of identity and/or purpose within a practice is something with which empiricism is unable to deal. Within empiricism, debate about common purpose and meanings is taken as an indication of **weakness,** because such debate implies that the participants have an **interest** in their practice that might prejudice their work as morally-neutral technicians. Whereas according to my thesis, such a debate is an indication of the **strength** of a practice. A common set of meanings makes disagreement sustainable and resolvable in a way that preserves the integrity of the practice.

It may be that teachers are becoming increasingly suspicious both of those attempts to set pay scales on the basis that extrinsic motivation is all that is important, and those attempts to find the one form of discourse, like computing, marketing or management, that is going to act as a determinant for the legitimacy and value of all others and that is going to provide them with a new sort of theory to inform future practice. Instead many teachers may come to accept that teaching is a practice [33] that sustains its own common meanings into which trainee teachers might be inducted by a sort of apprenticeship system, and which has as its central point of identity and its prime common meaning that the point of learning is to be able to "go on on one's own", that is, to be able to modify one's epistemological prejudices by continually reinterpreting one's perception of one's predicament in all the various forms that that reinterpretation might take.

Rizvi [34] is right to argue that we should do better to concentrate on particular educational problems as they arise in particular educational contexts. Yet the idea of social theory as interpretive practice does allow us to account for the way in which some practices might be preferred over others. However Rorty counsels against making too much of the idea of social theory as interpretive practice. He writes:

> What we hope for from social scientists is that they will act as interpreters for those with whom we are not sure how to talk. This is the same thing we hope for from our poets and dramatists and novelists. [35]

Rorty wants to stress that the manner in which a theory is presented is crucial for its success but he does not wish to suggest that interpretive practice can claim any greater insight than any other coherent narrative. What I want to suggest is that social theory conceived as interpretive practice can be validated in a way not necessarily open to other forms of narrative such as drama or poetry.

The Validation of Interpretive Practice

I argue that both theory and practice may be properly conceived within the idea of social theory as interpretive practice. I turn now to consider how social theory might be validated, for there is little point in having an account of theory unless that account includes a way of appraising theories. My account of social theory as interpretive practice points towards the idea that an 'ideal consensus' may serve as a 'regulative ideal' to guide theory-preference. However, as we noted at the end of the previous chapter, this idea is based on an "ungrounded hope" rather than an "objective criterion" and even though objectivists may be deluded in their belief that such a criterion can be formulated and usefully applied, their present dominance within educational policy-making institutions is likely to militate against any

institutional changes that might be proposed as part of a social theory that is regarded as validated on the basis of an "ungrounded hope".

According to my account all practices contain their own ways of validating theories, based on the "internal goods" that practitioners value. Since I characterise social theory as interpretive **practice,** then it might seem as if the validation of social theory were unproblematic for me, being based on those "internal goods" that the practitioners of social theory value such as style, coherence and authenticity in discourse. However "internal goods" are continually being transmuted within a practice and there remains the problem of differentiating between such **transmutation** and the **deformation** that occurs when "external goods" such as power, status and money start to dominate the practice. In other words, the common view of what constitutes style, authenticity and so on changes and it is not necessarily apparent whether such change has been brought about by an undesirable deformation of the practice or a desirable and normal change in the meaning that these terms have for the practitioners. The writers mentioned above argue that empiricist epistemology is necessarily distorting and they invoke the notions of "authentic community" and "communal solidarity" [36] in order to suggest that the members of a community know when their practice is so severely deformed that relationships within the community become distortive and sometimes even exploitative. Authenticity is supposed, by these writers, to be achieved when the members of a community reflect upon their immediate self-interests and distinguish between those interests that are distorted by ideology and those that are not. In this way, immediate self-interests are transcended by the reflective-discursive process so that practitioners may identify their "real" interests and act in "solidarity" with one another.

This transcendence may take place but it is hardly likely to satisfy the objectivist who will expect social theory to go beyond a mere recital of the ways of validating practices internally in order to enable us to appraise practices against each other. We may make two responses to the objectivist here. We can either suppose that there is an unbridgeable gulf between objectivist and hermeneuticist and go on appealing to notions of "communal solidarity" and so on in the hope that objectivists will see the folly of their ways. Alternatively we can grant to the objectivist that there is a need to go beyond the internal validation of social theory without our assuming that there is some sort of social reality that can serve as an external 'touchstone'. Instead we can suggest that it is the forms of 'normal' discourse that happen to enmesh with objectivistic and hermeneutic meta-theories that provide the 'touchstone' for their comparison.

We get no further towards validating social theories against each other if we continue to view theory or practice as things that can be measured, rather like weighing apples or assessing happiness or whatever. Nor do we get any further towards such validation if we continue to present social theories as visions of a moral/political nirvana in which all problems of theory validation disappear in some version of a communal "wonderland". Even if practical discourse were as deformed by instrumentalism as writers like MacIntyre, Taylor and Gadamer suggest, we should only be able to reorient our values and reject instrumentalism if we accepted that the ideas embodied in the term 'communal solidarity' could function as regulative ideals to guide the development of a social meta-theory. Such a meta-theory would need to have internal standards of validation that could be invoked to appraise all related social practices and these practices would need to be continually discursively validated by an on-going fundamental critique.

The problem with meta-theories of this kind that present a moral-political vision, which, if realised, would end all problems of theory validation, is that they tend to be catch-all theories, that cannot themselves be validated and certainly not by their own criteria. Any predictions made within such theories are always subject to the proviso that we do not yet have anything approaching 'communal solidarity'. Instead the attempt to achieve a moral-political vision involves starting from objectivistic social theories that **presently** inform our practices such as the theories that I discussed in chapter 3. That means comparing present practices against alternatives that would reflect to a greater extent the notions of 'democratic participation' and 'communal solidarity'. We might expect our social theories to guide the setting up of alternative institutional structures within which such alternative practices might flourish. I do not mean that every social theory should involve some proposals for alternative institutional practices but that the search for such proposals should function for the social theorist like the search for abnormal discourse - that is, as a **guide** to practice that is occasionally realised.

My argument is that at present many of our institutional practices in education are sustained by theories that are firmly rooted in objectivism. I am attempting to argue for alternative and better institutional practices that are rooted in a hermeneutic conception of educational theory. However I believe that its internal standards are insufficient to validate that attempt and that I still need to appeal to some 'touchstone' that will provide us with the means to validate theories against one another. I suggest that we can make little progress towards achieving a full realisation of the notions of 'communal solidarity' and 'democratic participation' unless we make practical changes that lead to institutions with different managerial structures flourishing alongside each other. The 'touchstone' by which these institutions could then be

compared would doubtless be similar to the forms of 'normal' discourse that are presently used to appraise those institutions that embody objectivism. However this modest bow in the direction of objectivism is necessary to enable us to make some kind of theoretic comparisons **now** in order that practical changes might be set in train and become established and thereby in a position to act as a sort of "research programme" by which future theoretical progress may be made.

We may draw an analogy between natural scientific and social theory to illustrate this suggestion: just as theoretical physics progresses because experimental physics keeps pace with it and provides the means of checking theoretical predictions and continuing the 'scientific conversation', so social theory may make progress because institutional practices keep pace with it and continue the 'conversation of mankind'. Social theory may remain ossified in objectivism unless institutional changes are made that reflect alternative conceptions of rationality. In other words, however many convincing narratives are produced extolling the virtues of a practical-discursive conception of rationality, theoretical progress is unlikely to be made unless some institutions are changed so that they embody such a conception of rationality.

I suggest that the validation of hermeneutic social theories depends upon subjecting the claims of rival hermeneutic and objectivistic theories to the court of appeal that is constituted in and exhibited by the ways that practices are both alleged to be and actually are changed by them and that implies institutional changes also. To this suggestion it might be objected that the possibility of any radical conceptual innovation rules out procedures involving prediction. However I am not proposing that **statements** be tested against the future. Instead I am proposing that **practices** that project their own tradition into the future can be compared with one another. In effect I propose that

the problem of conceptual innovation, that renders traditional empirical social theory implausible, may be partly overcome by comparing practices, which necessarily involve their own conceptual innovations. My equivalent to Lakatos's idea of a "research programme" [37] is the idea of an institutional practice such as that of a college. Just as Lakatos urges us not to judge theories individually but as a series that emanates from a decision to treat some theories as unproblematic while others are under test, so I urge the value of seeking to validate social theory by making the legal changes necessary for groups of **practices** such as colleges and schools to be set up in ways that reflect a concern with practical discursive rationality. These practices may then be compared with their objectivistic counterparts.

On this view institutional practices are allowed to flourish alongside one another. However if we are to avoid the kind of relativism that Feyerabend advocates, it may be necessary to agree both upon some time scale within which rival practices are to be compared and those forms of 'normal' discourse that are to serve as 'touchstones' for this comparison. Objectivists would certainly require this much. They would insist that social theories informed by hermeneutics include a statement indicating those conditions under which they could be falsified. In order to get theoretical comparison going and place objectivism in jeopardy, it seems to me that hermeneuticists must acquiesce in this requirement. However their acquiescence enables them to have some basis for hoping that objectivists **themselves** might adjust their practices on the basis of the conversations that they have with practitioners of the hermeneutic persuasion. In other words there remains the hope that by a process of gradual holistic adjustment, hermeneutics might come to replace objectivism as the dominant social theory within which our institutional, managerial and validatory requirements are conceived.

What I am proposing here may be illustrated by suggesting alternatives to the presently popular pre-vocational curricula and hierarchical managerial practices that, as I earlier argued, are underpinned by empiricism and objectivism and against which I inveighed. In the conclusion to this study, I examine how the pre-vocational curriculum for teachers might look if it were to be informed by hermeneutic social theories. Here I examine what is involved in establishing the general claim that a hermeneutic social theory may be validated by making comparisons between rival institutional practices that embody different meta-theoretical preconceptions.

I propose the setting-up of some educational institutions staffed by those who are sympathetic to the idea of practical discursive rationality to rival existing educational institutions that embody the idea of hierarchical managerialism. As the rival institutional practices develop, they should be compared using forms of 'normal' discourse that include attempts to apply such criteria as cost, pupil interest, parental support, examination results, success in obtaining employment or moving on to higher education, confidence of pupils in finding things out on their own and so on over a fixed period of time, after which a decision regarding their futures might be made. It is not that such comparisons could ever be made precise but, as I have argued, it is an objectivist myth to suppose that present institutional comparison can be made precise. Theoretical progress may be made however not only when a set of institutional arrangements is judged not to have met the previously agreed conditions under which they might be continued but also when those who work within rival educational institutions are sufficiently attracted to each other's concrete successes that they come to visit each other and learn about each other's successes. In a Kuhnian manner, they may come to modify what they themselves do:

> [n]o process quite like choice has occurred, but they are practising the new theory nonetheless. [38]

It should be noted that my proposal is not based on the idea that all centralisation of decision making is undesirable. We can come to prefer certain proposals over others by considering their merits in the contexts in which they will be implemented and that does not mean that all centrally-devised policies cannot usefully function as guides to particular practices. For me, the opposition between centrally and locally devised theories may be seen as a subset of the more general opposition between relativism and objectivism - oppositions that miss the point that theoretical progress comes about by individuals interpreting what each other is doing and coming to see how their practices might be improved rather than by assuming that the only valid policies are those that are derived locally or that the interpretation and evaluation of centrally devised policies is any more problematic than their locally devised counterparts.

For example I imagine that it would be possible to outline a curriculum **framework** that could command widespread consensus and serve as a **guide** to curricular decision-making without deforming the practice of teaching by imposing externally set objectives that are supposed to detail when and how teachers should work. Such a framework may provide the focus of a form of 'normal' discourse about the curriculum and as such may function as another 'touchstone' against which institutional comparisons may be made. A curriculum framework need not necessarily be conceived and established in such a form that debate about how to apply criteria becomes more important than the establishing of a fruitful dialogue between different types of practitioner, guided by a concern to achieve an 'ideal consensus'.

Instead of the idea that educational improvements are brought about by the 'management' of curriculum change, we may envisage a curriculum framework within which teachers are given resources and the encouragement to devise their own curricular materials, to plan their own learning environment and to learn from each other in the supportive atmosphere brought about an organisational structure that promotes practical discursive rationality. Institutions which are structured in this way may avoid the deformation of practice that is alleged to occur within a 'line management' form of institutional organisation and may enable practitioners to discuss their **genuine** concerns rather than those concerns that they might feel would least interfere with their chances of promotion. The set of conditions under which such institutions might be disbanded could form a temporary set of common meanings that sustains the new institutional practice by setting a horizon for its members in the formative stages of practical development.

I am not suggesting that education should be a prime vehicle for political change. Like Edgley [39] I doubt that this is either possible or desirable. My point is that such an institutional change is primarily a matter of facilitating progress in educational **theory.** Nor am I suggesting that a common curricular framework should not **evolve** within the practice of teaching and the conversations that teachers have with other kinds of practitioners. Instead I suggest that, within certain parameters, particularly financial but also statutory and conventional in the sense that children work towards similar targets, (and here it seems that external examinations with all their problems, may be more helpful than internal assessment in providing some 'touchstone' for theory-comparison), it should be possible to validate educational theories. Validation may never be conclusive in the sense that parents were consumers who by their choice of school would ultimately also be validating a theory or as if "league tables" of examination results could be directly equated with the

relative success of different managerial systems. However parental preference, examination results, pupil preference and so on might all provide the 'touchstone' necessary for educational theory-comparison.

It might be objected that such a move would complicate the system considerably and make it difficult to understand. However I am not suggesting that every aspect of education should be changed at the same time. Rather I am suggesting that it is rational to put any claim in jeopardy about what constitutes a good education **but not all** claims at once. Hence it is more rational to put some aspect of the institutional structure of schools in jeopardy rather than to continue to try to implement a range of curricular developments all at once. For the latter can lead to a loss of a sense of community, a loss of meaning for so many of those terms which teachers use to explain to each other what they are trying to do, that it becomes impossible to make sense of the idea of theoretical progress because the terms in which theories might be compared no longer exist.

The tragedy of the dominance of objectivism in educational theory is that it excludes consideration of many of the issues that affect what goes on in schools, for example the allocation of resources. Instead the issues of resources, pay and conditions of service, are ruled out of the court of objectivistic educational theorising and are left to periodic government review. It is as if educational theory were narrowly conceived as thinking about learning as a psychological or philosophical concept in abstraction from the actual context in which it takes place.

My proposal that educational theorists of the hermeneutic persuasion should endeavour to agree upon some 'touchstone' with educational theorists of the objectivistic persuasion is risky in the sense that either type of theorist may

always invoke an "ad hoc" hypothesis [40] to explain away their rival's "successes" and their own "failures" as defined by the agreed 'touchstone'. Moreover the distortive effects of the dominance of objectivism may always lead us to view a hermeneuticist's success as an instrumental attempt to achieve pre-set objectives, thus further reinforcing the dominance of objectivism. To put it in Lakatos's terms, the attempt to establish whether a "research programme" whose "hard core" is constituted by social theories based on a practical discursive conception of rationality is progressing may always be thwarted by the impossibility of our ever realising that conception in practice and may simply serve as a means of further reinforcing the dominance of objectivism. However it seems to me that these risks are worth taking. Objectivism may still be the most appropriate underpinning for our educational practices but without our taking these risks, I do not see how this claim can ever be subjected to scrutiny and potential refutation.

———oOo———

NOTES AND REFERENCES

1 Taylor C. Philosophical Papers 1985, Vol 2, p 18.

2 MacIntyre A. After Virtue 1981, p 187.

3 Ibid..

4 Ibid., p 194.

5 cf. Curriculum Change: an Evaluation of TEC Programme Development in Colleges Further Education Unit, 1981. "An analysis of just a few of the assessment plans shows the enormous diversity in the detail of assessment patterns derived for the same Standard Unit by different Colleges. In completing assessment plans it appears that some colleges attempted as thorough an analysis as possible devising a plan to which they expected to adhere rigorously, using precisely the assessment methods they selected. Others submitted plans in which they included a number of assessment methods for particular skills and topic areas with the intention of choosing specific methods on implementation." (p 44) The author goes on: "The detail [given by TEC] has given the impression that decisions about the assessment processes have a precision which previous and present experience show to be unattainable and untenable." (p 46)

6 MacIntyre A. 1981, p 194.

7 Ibid., p 189.

8 Ibid., p 194.

9 The moral theory presented by MacIntyre (1981) depends upon a conception of the "good life" in which external goods are **subordinate** to internal goods. In a recent essay titled "Education, Liberalism and Human Good" J. and P. White argue that MacIntyre's notion of a practice may "provide us with the tools for beginning to construct a theory - or theories - of education which many would find attractive" (p 162) While I have not drawn specific curricular implications from MacIntyre's work, it seems to me that J. and P. White are correct in their assertion that "there is something immensely attractive about [a MacIntyrean education]. It incorporates so many of the more appealing features of different schools of thought while avoiding the difficulties which generally accompany them. It stresses breadth of experience yet without sacrificing commitment; it is thoroughly pupil-centred, but sees the pupil always as a memeber of a community; it is not excessively biased towards the intellectual and academic but by no means excluding them; it stresses both the whole person and engagement in particular activities; it gives the virtues a prominence to which many would wish to resore them; it sees the vital importance of traditions, but does not imprison pupils within them; and so on." (p 161) It seems to me that my third Gadamerian account of learning (see my page 203) is essential to the realisation of these ideals for without it, it is not clear how pupils could free themselves from the initial range of practices in which they were inducted and make choices about which alternative practices are worth pursuing.

10 Bearing in mind the discussion above, it is perhaps not surprising that this account looks very similar to Hirst's "forms of knowledge" thesis. (cf. Hirst P.H. 1974, pp 30-54.)

11 Gadamer H.G. Truth and Method 1975, p 289.

12 Oakeshott M. The Voice of Poetry in the Conversation of Mankind 1959.

13 Taylor C. 1985, Vol 2, p 54.

14 Ibid., p 90.

15 Carr W. Kemmis S. Becoming Critical: Knowing through Action Research 1983.

16 Klafki W. Aspekte Kritisch-konstructiver Erziehungswissenschaft 1976, p 60.

17 See my discussion of this in the previous chapter.

18 Carr W. Kemmis S. 1983.

19 A practical discursive conception of rationality seems to function as a foundation for the social theory of Carr and Kemmis. Whereas my conception of rationality involves placing the theoretical claims that support that conception of rationality, in jeopardy.

20 White J.P. The Aims of Education Restated 1982.

21 Ibid., see especially the discussion of intrinsic aims in chapter 2.

22 Carr W. Kemmis S. 1983.

23 See my discussion of this in chapter 2.

24 cf. Taylor C. 1985, Vol 1, pp 15-45.

25 This looks like Schleiermacher and Dilthey's starting point in the "explication of the texts" of classical and medieval literature. However "interpretive practice" differs from such explication by being **continuous** rather than an attempt to provide a **final** or **complete** interpretaion.

26 Taylor C. 1985, Vol 2, p 50.

27 Ibid., p 50.

28 This phrase is taken from Habermas J. The Theory of Communicative Competence Vol 2, not yet published in English translation. McCarthy T. quotes it in the "Introduction" to Vol 1. 1984, p xxxi.

29 Gadamer H.G. Reason in the Age of Science 1981, pp 88-112.

30 Taylor C. 1985, Vol 2, p 49.

31 See my chapters 2 and 3 for an examination of this assumption.

32 Peters R.S. Ethics and Education 1966, ch. 2.

33 The idea of teaching as a practice has recently been given much prominence by Langford G. Education, Persons and Society: a Philosophical Enquiry 1985. See the exchange between Langford and Brooke-Norris S.B. in the Journal of the Philosophy of Education 20:2, pp 227-243, 1986. See also D.E. Cooper's review of Langford's book in the same issue. Cooper criticises Langford for holding that teaching both **is** a practice with a tradition and **should be** a practice with a tradition. Cooper points out that if teaching presently is a practice with a tradition, then 'tradition' must be taken in a very weak sense since teaching seems recently to have been subject to the most radical changes. If alternatively, Langford supposes that teaching should **become** a practice within which greater regard should be paid to tradition, then Cooper points out, Langford would need to show how the practice of teaching is presently being deformed. This he does not do. Whereas I can respond to Cooper's criticism with my Gadamerian argument that **presently** the practice of teaching is being deformed by instrumentalism with undesriable educational consequences.

34 Rizvi F. The Fact-Value Distinction and the Logic of Educational Theory 1983.

35 Rorty R. Consequences of Pragmatism 1982, p 202.

36 Gadamer, for example writes "The point is that genuine solidarity, authentic community should be realised" 1981, p 80. The affinities between Gadamer, Habermas and Rorty are discussed by Bernstein R.J. 1983, see especially pp 224-226.

37 Lakatos I. The Methodology of Scientific Research Programmes 1978.

38 Kuhn T.S. The Essential Tension 1977, p 339.

39 Edgley R. "Education, Work and Politics" 1980.

40 I am thinking here of the kind of considerations put forward by Popper K.R. 1957 which were discussed in note 18 of my chapter 5.

———oOo———

CONCLUSION

At the beginning of this study, after a discussion of some of the contributions to the debate about the nature and scope of educational theory, two questions were posed:

What does educational theory presently do?

What should educational theory do?

The remainder of the study was an attempt to answer these questions.

An answer to the first question was given in chapter 2. I argued there that as a result of the dominance of foundationalist empiricism as the epistemic framework within which educational theory is presently conceived, educational theory is instrumental in supporting self-referential policies that are supposed to guide educational practice. In particular I argued that many of those who work within the Colleges and Departments of Education and who might be thought to be concerned with educational theory have been left with some combination of explaining curriculum initiatives to teachers or devising curricular support materials for teachers to use. In either case, the educational policy itself remains unchallenged because the empiricist presuppositions of these "theorists" that are reflected in their pedagogical roles as teacher-educators limit educational research to a supposed "objective" investigation of the most efficient way of achieving the policy objectives, rather than offering a fundamental critique of the objectives themselves. An acceptance of foundationalist empiricist epistemology seems to involve both the idea that educational means can be determined objectively, and the idea that educational ends are relative to whatever values individual policy-makers happen to hold at any particular time.

This answer prompted me to question the rationality of such a procedure. We saw that the opposition between the ideas of objectivism and relativism pervades much current thinking about education in one form or another. For example, in chapter 3, the opposition between liberal curricular ideas and vocationalism was seen to be a subset of the more general opposition between relativism and objectivism. I argued that the dominance of the epistemic framework of foundationalist empiricism within which much educational theory is currently conceived has led curriculum designers away from the liberalism of the 1960's to the presently fashionable ideas of vocationalism and managerialism. We saw how these ideas might be educationally undesirable.

A discussion of post-empiricist philosophy of science enabled us to see the ways in which we might move away from foundationalist empiricism towards holistic coherence as an epistemological underpinning for educational theory without assuming that the notion of theoretic coherence can be determined objectively. Instead we saw how theoretical progress can be explained as an increase in the coherence of a theoretic network brought about by practitioners interpreting and reinterpreting what each other is doing. By adopting the notion of interpretation, we saw how the opposition between objectivism and relativism might be avoided, for even though there may be no algorithmic way of coming to prefer some theories over others nor one form of discourse that serves as a final court of appeal for claims formulated in any other forms of discourse, nevertheless there are considerations that serve to guide our interpretations. I argued in particular that our interpretations of each other's educational practices might be guided by the same considerations that guide what is commonly regarded as our most successful type of theory - natural science. This enabled me to appeal to the idea that theorising about education should be modelled on natural science in order to answer the second question concerning the future purpose of educational theory.

This meant that educational theory should be seen as an interpretive practice. I take education to be a set of interrelated practices, such as the practice of teaching along with certain institutional practices like administrative practices. I take it too that educational practices are related to a wider set of practices which people are either interested in learning about or which affect the way that they conceive of what they are doing. Philosophy of education is interpretive practice in the sense that it seeks to understand and explain what those involved in the educational enterprise are doing, with the purpose of bringing greater coherence to the way in which educational practices relate to one another. That means finding new and more interesting ways of speaking and acting in education (rather similar to Goodman's notion of the different "ways of worldmaking" [1]), on making connections between different forms of practical discourse, and on thinking up ways to reinterpret what we do, with the aim of framing the various options that educational practitioners face and of giving them the theory that will function as 'touchstone' in their adjudication and evaluation of the differences between them.

The familiarity of philosophers with different ways of world-making and different ways of viewing the language - thought - reality relationship makes them particularly suited to taking a leading role in an activity that is concerned with getting others to find more fruitful ways of speaking and acting, making connections between types of discourse and reinterpreting their predicament. I do not wish however to suggest that educational theory is the sole preserve of philosophy of education or vice-versa. In my view nothing much hinges on whether educational theorists are primarily interested in philosophy, psychology, action research or whatever. What matters is that it becomes more acceptable to theorise about education from perspectives other than that of foundationalist empiricism. It seems to me that those who have a broad understanding of many forms of practical discourse are more likely to be

successful as educational theorists than those who imagine that immersion in one or two particular forms of discourse only, like psychology or sociology, is the key to successful theorising. On this view it may be more correct to speak of philosophers **in** education rather than philosophers **of** education.

The hermeneutic idea of a constant critical reinterpretation of theory into practice and practice into theory seems to me to be not only preferable to the dominant 'theory **guiding** practice' paradigm of educational theory but also to the more sophisticated forms of what I described as the 'move to practice'. I argued that the materialist pragmatist (MP) idea that theory is the response to a practical problem simply pushed the problem of finding an account of theory back to the anterior problem of finding an account of what constitutes a problem.

According to my thesis, it is possible to be theoretical without any immediate regard for so-called 'practical' problems and that is about as disinterested as anyone can be. Even though theorising relates to practical problems it can never merely be a response to them nor does doing theory ever necessarily offer any immediate solutions to immediate problems. Nevertheless it may still be desirable to free some people from immediate practical concerns in order that they might devote more of their attention to theorising in the hope that better theory results. This proposal may be validated in the same way as any other proposal - that is by the setting up of different institutional structures with common criteria of success and waiting to see what happens.

I conclude by summarising the changes that might be envisaged if this proposal were to be implemented and teacher education were to be located within a different set of institutional arrangements than those that presuppose foundationalist empiricism.

The Future of Teacher Education

The empiricist 'theory guiding practice' idea has given rise to the institutionalisation of a particular version of theory within Colleges of Further Education and Colleges and Departments of Education. The hermeneutic idea that theory and practice are like conversational partners suggests that teacher education should be more closely related to the practical teaching context. While it is possible for tutors within Colleges and Departments of Education to create a context within which useful preparatory work for teaching practice can be carried out by trainee teachers, using micro-teaching equipment, planning lessons, reviewing curriculum content and so on, such preparation is always subject to the criticism that "practice lessons" bear little resemblance to those lessons that trainees are supposed to present in schools.

As a result of this type of criticism there have been moves towards including more "school experience" in teacher training courses, - and there are good reasons to suppose that these moves will continue to gain momentum. Moreover there might be great advantage to be gained if "school experience" were largely to replace those parts of the teacher training curriculum that are presently concerned with simulating that "experience" and if teachers themselves were to become more involved in teacher training. There have been various suggestions as to how this might be organised, ranging from M. Warnock's idea of the "teacher tutor" and a "General Teaching Council" [2] to the procedure whereby the trainee teacher might work with a variety of teachers in a variety of schools on a sort of rotational basis, or indeed a combination of both.

The move in this direction was given some momentum in the White Paper 'Teaching Quality'. [3] However my thesis suggests a more radical break with the institutional arrangements suggested by the Secretaries of State when they

recommend that

> the staff of training institutions who are concerned with pedagogy should have school teaching experience. They should have enjoyed recent success as teachers in the age range to which their training courses are directed, [4]

According to my proposal, it is preferable for all pedagogical matters to be dealt with in school and for teacher trainers largely to renounce their claims to having something special to say to trainee teachers about **pedagogy** on the basis of their supposed theoretical awareness. That is not to say that the 'theory of pedagogy' should be given up. Rather it is to say that no theory of pedagogy is ever likely to replace the sort of apprenticeship that a trainee teacher might get by working along with an experienced colleague. [5]

Presently teacher education might be seen to be comprised of two components, one concerned with pedagogy, the other concerned with educational theory, where educational theory is often conceived to be concerned with something approaching an immersion into the 'disciplines'. [6] It is worth noting that "curriculum studies" tends to have a foot in both camps, so to speak, and is often used as a supposed bridge between educational theory and practice . Recently "professional studies" have come to replace "curriculum studies" [7] as a bridge between theory and practice, - "old wine in new bottles" [8] as one commentator puts it.

The dominance of foundationalist empiricist epistemology saw to it that teacher trainees passed through the tutelage of so-called educational theorists as a preparation for their future careers and many "theorists" tended to conceive the problem of the relationship between theory and practice as a search for the ways in which their tutelage **was** appropriate to the preparation of teachers rather than the logically prior issue as to **whether** their tutelage was appropriate. Professional studies might be seen as the latest in a series of

attempts to bridge a divide that had only opened up because the institutionalisation of an epistemological framework resulted in some studies being validated within an academic context, and others being validated in a vocational context. [9]

If teachers were themselves to take over the training of their trainees, then there would remain the question of the most appropriate institutional arrangements for enabling those who are charged with the special responsibility for theorising about education critically to interpret the work of teachers and others involved in the educational enterprise and vice-versa. It should be remembered that my proposal for some people to be freed from immediate practical concerns in order to search for coherence across a range of practices was not based on any **academic** division of labour but simply on the ungrounded hope that better progress in educational theory might be made if such a proposal were implemented. However if educational theorists were to accept the task of looking at the ways that teachers interpret what they are doing against a range of different considerations, one of the most important being financial, then we might have available a range of properly costed proposals with which to debate our educational priorities and with which to appraise any new developments. We would not have to assume that every new development that seemed to have some attractive features was necessarily any better than the last. It may be that such an arrangement might lead to the production of a series of arguments that give quite specific support to one course of action as opposed to another. However my thesis leaves room for the view that such an engagement with theory might change the teacher's orientation in a way that it would be foolish of me to try to predict.

It follows that Colleges and Departments of Education should have a much broader range of research interests than is presently the case. Instead of the

present dominance of psychology as the discipline supposedly most concerned with educational measurement, curriculum development and the theoretical underpinnings of pedagogy, educational policy too might be offered and made one of the main thrusts of educational research, not as an after-thought, but as an integral part of debate about the purpose of education, the desirability of certain sorts of society and the relations between education and other influences which impinge on people's lives.

This latter concern seems to point towards the institutionalisation of educational theory within multi-faculty type institutions for if it is assumed that the education provided by the state is just one determinant of the planned future then, as Jonathan [10] argues, it matters how educational provisions are dovetailed in with other influences on development. This argument suggests that it might be preferable if educational theory took account of developments in other types of theory. A **poly**technic-type institution might facilitate such exchange of views. [11]

If training in pedagogy is best left to teachers themselves, then it follows that those institutions responsible for educational theory could be much smaller than is presently the case. There seems to be a need for a staff-college element within such institutions that would facilitate the continuing engagement of teachers with theory. This points towards the desirability of some exchange of teachers and theorists between institutions, in order to increase the mutual understanding of what teachers and theorists think that they are doing, but not to pretend that a term's secondment in schools is ever likely to ensure that teacher trainers have "enjoyed recent success as teachers".

The proposed wide remit for those institutions that might be charged with the special responsibility for educational theory is not meant to imply that such institutions should be the final arbiters about which way the state education system should develop, as if educational debate would be removed from the political sphere and as if teacher and employer associations would be unnecessary. Instead educational theorists might outline the prices to be paid for various developments. However Jonathan goes too far when she suggests

> Which nexus of mediated values and purposes (and hence the educational programmes implied) might then be endorsed by society is not a matter for logic, calculation or expertise, but for further argument in the public forum of competing values and interests. [12]

For according to my thesis it is worth hoping that educational theory might point the way forward **as a result** of carefully constructed arguments and it is also worth hoping that the suggestions of **some** educational theorists, at any rate, should be endorsed on the basis of the acceptability of some of their previous attempts to theorise. I agree with Jonathan that "logic, calculation or expertise" can never **determine** an outcome. However it is worth hoping that it might influence the discussion in a particular direction.

———oOo———

NOTES AND REFERENCES

1 Goodman N. Ways of Worldmaking 1978.

2 Warnock M. "Teacher teach thyself" The 1985 Richard Dimbleby Lecture, printed in The Listener 28.3.85. pp 10-14.

3 "Teaching Quality" White Paper, Cmnd 8836, March 1983, HMSO.

4 "Initial Teacher Training: Approval of Courses" Circular No 3/84 DES, 13.4.84. p 6.

5 cf. Jonathan R. "Empirical Research and Educational Theory" in Simon B. Willcocks J. eds. Research and Practice in the Primary Classroom 1981, pp 161-175.

6 cf. Alexander R.J. "Innovation and Continuity in the Initial Teacher Education Curriculum" in Alexander R.J. Craft M. Lynch J. eds. Change in Teacher Education 1984, especially pp 113-146.

7 The discussion of the professional studies issue occurs throughout the collection edited by Alexander R.J. et al. 1984. See also Foss K. The Status of Professional Studies in Teacher Education University of Sussex Education Area Occasional Paper 4, 1975.

8 Alexander R.J. 1984, p 137.

9 Again this is discussed throughout the collection edited by Alexander et al. 1984, and Alexander discusses the influences on the academic/vocational division in his "Innovation and Continuity in the Initial Teacher Education Curriculum" pp 103-160.

10 Jonathan R. "Education, Philosophy of Education and Context" 1985.

11 This is contrary to the Scottish Tertiary Education Advisory Committee (STEAC) recommendation that Colleges of Education should remain as monotechnic institutions. "Future Strategy for Higher Education in Scotland" Cmnd. 9676, 1985, HMSO. p 60.

12 Jonathan R. 1985, p 24.

———oOo———

BIBLIOGRAPHY

The Bibliography contains entries of two sorts:
(i) works to which reference has been made in the course of the text;
(ii) works which are not specifically referred to in the course of the text but which have close relevance.

The following abreviations are used:

JCS:	Journal of Curriculum Studies
JFHE:	Journal of Further and Higher Education
JPE:	Journal of Philosophy of Education
NFER	National Foundation for Educational Research
PESGB	Proceedings of the Philosophy of Education Society of Great Britain
RKP	Routledge and Kegan Paul
SED	Scottish Education Department, New St. Andrew's House, Edinburgh.

Adorno T.W. Against Epistemology: a Metacritique Oxford: Blackwell, 1982.

Alexander R.J. Craft M. Lynch J. Change in Teacher Education Holt, Reinhart and Winston, 1984.

Archambault R.D. ed. Philosophical Analysis and Education RKP, 1965.

Aspin D.N. "Philosophy of Education" in Cohen L. Thomas J. Manion L. Educational Research and Development in Britain 1970-1980 NFER, Nelson, 1982.

Barrow R. Giving Teaching Back to Teachers Brighton: Wheatsheaf, 1984.

Bauman Z. Hermeneutics and Social Science Hutchinson, 1978.

Bernstein R.J. The Restructuring of Social and Political Theory Oxford: Blackwell, 1976.

Bernstein R.J. Beyond Objectivism and Relativism Oxford: Blackwell, 1983.

Bernstein R.J. ed. Habermas and Modernity Oxford: Blackwell, 1985.

Bhaskar R. The Possibility of Naturalism Brighton: Harvester, 1979.

Bloor D. Wittgenstein: a Social theory of Knowledge Macmillan, 1983.

Boden M. Artificial Intelligence and Natural Man Brighton: Harvester, 1977.

Brent A. Philosophical Foundations for the Curriculum Allen and Unwin, 1978.

Brownhill R. Education and the Nature of Knowledge Croom Helm, 1983.

Cantor L.M. Roberts I.F. Further Education Today RKP, 1979.

Carr W. "The Gap Between Theory and Practice" JFHE, 4:1, pp 60-69, 1980.

Carr W. "Can Educational Research be Scientific?" JPE 17:1, pp 35-43, 1983.

Carr W. "Review of Educational Theory and its Foundation Disciplines" JCS 17:1, 1985.

Carr W. "Theories of Theory and Practice" JPE 20:2, pp 177-185, 1986.

Carr W. Kemmis S. Becoming Critical: Knowing Through Action Research Victoria: Deakin University Press, 1983.

Davidson D. Inquiries into Truth and Interpretation Oxford: Clarendon Press, 1984.

Dearden R.F. Theory and Practice in Education RKP, 1984.

Dockrell W. Hamilton D. eds. Rethinking Educational Research Hodder and Stoughton, 1980.

Earl P.E. The Economic Imagination: Towards a Behavioural Analysis of Choice Brighton: Wheatsheaf, 1983.

Earl P.E. The Corporate Imagination Brighton: Wheatsheaf, 1984.

Edgley R. Reason in Theory and Practice Hutchinson, 1969.

Edgley R. "Education, Work and Politics" JPE 14:1, pp 3-16, 1980.

Edwards J.C. Ethics without Philosophy: Wittgenstein and the Moral Life University Press of Florida, 1982.

Evers C.W. Logical Structure and Justification in Educational Theory Unpublished Ph.D. thesis, Department of Education, University of Sydney, 1982.

Evers C.W. Walker J.C. Epistemology, Semantics and Educational Theory Occasional Paper no 16, Department of Education, University of Sydney, 1984.

Fann K.T. Wittgenstein's Conception of Philosophy Berkeley, University of California Press, 1969.

Feyerabend P.K. Against Method Humanities Press, 1975.

Feyerabend P.K. Science in a Free Society New Left Books, 1978.

Gadamer H.G. "Replik" Continuum 8, 1970.

Gadamer H.G. Truth and Method Sheed and Ward, 1975.

Gadamer H.G. "Hermeneutics and Social Science" Cultural Hermeneutics 2, 1975.

Gadamer H.G. Philosophical Hermeneutics Berkeley, University of California Press, 1976.

Gadamer H.G. Reason in the Age of Science Cambridge, Mass: M.I.T. Press, 1981.

Gadamer H.G. Philosophical Apprenticeships Cambridge, Mass: M.I.T. Press, 1985.

Garfinkel A. Forms of Explanation New Haven: Yale University Press, 1981.

Gellner E. Words and Things Pelican, 1968.

Gellner E. Cause and Meaning in the Social Sciences RKP, 1973.

Gellner E. Legitimation of Belief Cambridge University Press, 1974.

Gellner E. Spectacles and Predicaments Cambridge University Press, 1979.

Gellner E. Relativism and Social Science Cambridge University Press, 1985.

Geuss R. The Idea of a Critical Theory Cambridge University Press, 1981.

Giddens A. New Rules of Sociological Method Hutchinson, 1976.

Giddens A. Studies in Social and Political Theory Hutchinson, 1977.

Giddens A. Sociology: a Brief but Critical Introduction Macmillan, 1982.

Gleeson D. Mardle G. Further Education or Training? RKP, 1980.

Golby M. Greenwald J. West R. eds. Curriculum Design Croom Helm, 1975.

Goodman N. Ways of Worldmaking Brighton: Harvester, 1978.

Goodman N. Of Mind and Other Matters Harvard University Press, 1984.

Habermas J. "Towards a Theory of Communicative Competence" Recent Sociology 2, pp 115-148, New York: McMillan, 1970.

Habermas J. Towards a Rational Society Heinemann, 1971.

Habermas J. Knowledge and Human Interests Heinemann, 1972.

Habermas J. "A Postscript to Knowledge and Human Interests" Philosophy and the Social Sciences 3, pp 157-189, 1973.

Habermas J. Theory and Practice Heinemann, 1974.

Habermas J. "On Systematically Distorted Communication" Inquiry 13, pp 205-218, 1975.

Habermas J. "A Review of Gadamer's Truth and Method" in Dallmayr F. McCarthy T. eds. Understanding and Social Inquiry Notre Dame, Ind: University of Notre Dame Press, pp 335-363, 1977.

Habermas J. The Theory of Communicative Action Vol 1, Heinemann, 1984.

Hahn F. Hollis M. eds. Philosophy and Economic Theory Oxford University Press, 1979.

Hamlyn D.W. The Theory of Knowledge Macmillan, 1970.

Harris K. Education and Knowledge RKP, 1979.

Hartnett A. Naish M. eds. Theory and Practice of Education in 2 vols, Heinemann, 1976.

Hayes C. Izatt A. Morrison J. Smith H. Townsend C. Foundation Training Issues Institute of Manpower Studies, University of Sussex, 1982.

Heidegger M. Being and Time New York: Harper and Row, 1962.

Held D. Introduction to Critical Theory Hutchinson, 1980.

Hesse M. Revolutions and Reconstructions in the Philosophy of Science Brighton: Harvester, 1980.

Hirst P.H. Peters R.S. The Logic of Education RKP, 1970.

Hirst P.H. Knowledge and the Curriculum RKP, 1974.

Hirst P.H. ed. Educational Theory and its Foundation Disciplines RKP, 1983.

Holland R.F. Against Empiricism Oxford: Blackwell, 1980.

Holt M. "Vocationalism: the new threat to universal education" Forum, Summer Issue, pp 84-86, 1983.

Hollis M. Lukes S. Rationality and Relativism Oxford: Blackwell, 1982.

Holt M. ed. Skills and Vocationalism: the Easy Answer Croom Helm, 1987.

Hookway C. Pettit P. Action and Interpretation Cambridge University Press, 1978.

Horkheimer M. Critical Theory New York: Herder and Herder, 1972.

Howard R.J. Three Faces of Hermeneutics Berkeley: University of California Press, 1982.

Hoy D.C. The Critical Circle Berkeley: University of California Press, 1978.

Humes W. The Leadership Class in Scottish Education John Donald, 1986.

Jonathan R.M. Educational Theory: its Nature, Scope and Limits Ph.D. thesis, University of Leicester, 1981.

Jonathan R.M. "The manpower service model of education" Cambridge Journal of Education 1983

Jonathan R.M. "Education, Philosophy of Education and Context" JPE 19:1, 1985.

Jonathan R.M. "Core Skills in the Youth Training Scheme: an Educational Analysis" in Holt M. 1987.

Klafki W. "Handlungsforschung" in Wulf I. ed. Worterbuch der Erziehung Verlag, Munchen, R. Piper and Co., 1974.

Klafki W. Aspekte kritisch-konstructiver Erziehungswissenschaft Weinheim and Basel, Beltz Verlag, 1976.

Kripke S.A. Wittgenstein: on Rules and Private Language Oxford: Blackwell, 1982.

Kuhn T.S. The Structure of Scientific Revolutions University of Chicago Press, 1962. (second enlarged edition 1970)

Kuhn T.S. The Essential Tension University of Chicago Press, 1977.

Lakatos I. Musgrave A. eds. Criticism and the Growth of Knowledge Cambridge University Press, 1970.

Lakatos I. Mathematics, Science and Epistemology Cambridge University Press, 1978.

Lakatos I. The Methodology of Scientific Research Programmes Cambridge University Press, 1978.

Langford G. O'Connor D.J. New Essays in the Philosophy of Education RKP, 1973.

Langford G. Education, Persons and Society: a Philosophical Enquiry Macmillan, 1985.

Laslett P. Runciman W.G. eds, Philosophy Politics and Society Oxford: Blackwell, 1962.

Lloyd D.I. "Theory and Practice" PESGB 10, p 110, 1976.

Louch A.R. Explanation and Human Action Oxford University Press, 1966.

MacIntyre A. After Virtue Duckworth, 1981.

Malcolm N. Problems of Mind: Descartes to Wittgenstein Allen and Unwin, 1972.

Matthews M.R. The Marxist Theory of Schooling Brighton: Harvester, 1980.

McCarthy T. The Critical Theory of Jürgen Habermas Hutchinson, 1978.

Mill J.S. Utilitarianism, Liberty and Representative Government (1859) Dent Everyman.

Moore G.E. Philosophical Papers Allen and Unwin, 1959.

Moore T.W. Educational theory: an Introduction RKP, 1974.

Oakeshott M. The Voice of Poetry in the Conversation of Mankind Bowes and Bowes, 1959.

Oakeshott M. Rationalism in Politics Methuen, 1962.

Oakeshott M. On human Conduct Oxford: Clarendon Press, 1975.

O'Connor D.J. An Introduction to the Philosophy of Education RKP, 1957.

O'Connor D.J. "The Nature and Scope of Eucational Theory (1)" in Langford G. O'Connor D.J. 1973.

O'Connor D.J. "Two Concepts of Education" JPE 16:2, pp 137-146, 1982.

Papert S. Mindstorms: Children, Computers, and Powerful Ideas Brighton: Harvester, 1980.

Peters R.S. Ethics and Education Allen and Unwin, 1966.

Peters R.S. Philosophy and the Education of Teachers RKP, 1977.

Pitcher G. ed. Truth Prentice Hall, 1964.

Pitkin H.F. Wittgenstein and Justice Berkeley: University of California Press, 1972.

Polanyi M. Personal Knowledge RKP, 1958.

Popkewitz T.S. Paradigm and Ideology in Educational Research Falmer, 1984.

Popper K.R. The Open Society and its Enemies in 2 vols. RKP, 1945.

Popper K.R. The Poverty of Historicism RKP, 1961.

Popper K.R. Conjectures and Refutations RKP, 1963.

Popper K.R. The Logic of Scientific Discovery Hutchinson, 1968.

Popper K.R. Objective Knowledge Oxford: Clarendon, 1972.

Popper K.R. Unended Quest Fontana, 1976.

Pring R. "Philosophy of Education and Educational Practice" PESGB 4, 1970.

Pring R. Knowledge and Schooling Open Books, 1976.

Putnam H. Philosophy of Logic Allen and Unwin, 1971.

Putnam H. Mind, Language and Reality: Philosophical Papers vol. 2 Cambridge University Press, 1975.

Putnam H. Meaning and the Moral Sciences RKP, 1978.

Putnam H. Reason Truth and History Cambridge University Press, 1981.

Quine W.V.O. From a Logical Point of View New York: Harper and Row, 1953.

Quine W.V.O. Word and Object Cambridge: M.I.T. Press, 1960.

Quine W.V.O. Ontological Relativity and Other Essays New York: Columbia University Press, 1969.

Quine W.V.O. Philosophy of Logic Prentice Hall, 1970.

Quine W.V.O. The Roots of Reference La Salle, Open Court, 1974.

Quine W.V.O. "Facts of the Matter" in Shahan R.W. Merrill K.R. eds. American Philosophy: From Edwards to Quine Norman: University of Oklahoma Press, 1977. Cited as reprinted in Shahan R.W Swoyer C. eds. Essays on the Philosophy of W.V. Quine Brighton: Harvester, 1979.

Quine W.V.O. "Cognitive Meaning" The Monist 62:2, pp 129-142, 1979.

Rizvi F. The Fact-Value Distinction and the Logic of Educational Theory Ph.D. thesis, University of London, King's College, 1983.

Roche M. Phenomenology, Language and the Social Sciences RKP, 1973.

Romanos G.D. Quine and Analytic Philosophy Cambridge, Mass: M.I.T. Press, 1983.

Rorty R. Philosophy and the Mirror of Nature Oxford: Blackwell, 1980.

Rorty R. Consequences of Pragmatism Brighton: Harvester, 1982.

Ryle G. The Concept of Mind Penguin, 1966.

Scheffler I. Reason and Teaching RKP, 1973.

Schenck J.R. An Analysis of the Concepts of Curriculum through Wittgenstein's concept of Language Games Ph.D. thesis, Washington State University, 1978.

Sellars W. Science Perception and Reality RKP, 1963.

Shackle G.L.S. Imagination and the Nature of Choice Edinburgh University Press, 1979.

Simon B. Willcocks J. eds. Research and Practice in the Primary Classroom RKP, 1981.

Strawson P.F. Meaning and Truth Oxford: Clarendon, 1970.

Stenhouse L. An Introduction to Curriculum Development Heinemann, 1975.

Tarski A. "The Semantic Conception of Truth" Philosophy and Phenomenological Research 4, 1944.

Taylor C. Philosophical Papers in 2 vols. Cambridge University Press, 1985.

Thompson J.B. Critical Hermeneutics Cambridge University Press, 1981.

Thompson J.B. Held D. eds. Habermas: Critical Debates Cambridge: M.I.T. Press, 1982.

Tibble J.W. ed. The Study of Education RKP, 1966.

Tudor A. Beyond Empiricism RKP, 1982.

Vincent B. Vincent T. Information Technology and Further Education Kogan Page, 1985.

Walker J.C. "Dusting off Educational Studies: a methodology for implementing certain proposals of John Wilson's" JPE 18:1, 1984.

Warnock M. Schools of Thought Faber, 1977.

Warnock M. Education: a Way Ahead Oxford: Blackwell, 1979.

Warnock M. "Teacher teach thyself" The 1985 Richard Dimbleby Lecture, printed in The Listener 28.3.85., pp 10-14.

White D.J. Decision Theory Allen and Unwin, 1969.

White J. The Aims of Education Restated RKP, 1982.

White J. White P. "Education, Liberalism and Human Good" in Cooper D.E. Education, Values and Mind: Essays for R.S. Peters pp 142-179, RKP, 1986.

Wilson B.R. ed. Rationality Oxford: Blackwell, 1970.

Wilson J. Philosophy and Educational Research Slough: NFER, 1972.

Wilson J. Educational Theory and the Preparation of Teachers Slough: NFER, 1975.

Winch P. The idea of a Social Science and its Relation to Philosophy RKP, 1958.

Winch P. Ethics and Action RKP, 1972.

Wittgenstein L. Philosophical Investigations Oxford: Blackwell, 1953.

Wittgenstein L. Preliminary Studies for the 'Philosophical Investigations': the Blue and Brown Books Oxford: Blackwell, 1958.

Wittgenstein L. Tractatus Logico-Philosophicus RKP, 1961.

Wittgenstein L. On Certainty Oxford: Blackwell, 1969.

Wittgenstein L. Culture and Value Oxford: Blackwell, 1977.

Wittgenstein L. Wittgenstein and the Vienna Circle: conversations recorded by Friedrich Waismann ed. McGuinness B. Oxford: Blackwell, 1979.

Wolff J. Hermeneutic Philosophy and the Sociology of Art RKP, 1975.

———oOo———